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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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2316.5
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2311.5
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seq length: 2000000000
    Query
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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    Gapext 0.5
 US-08-802-805D-21
US-08-837-199A-4
US-08-860-370-2
US-09-187-906-2
US-09-388-316C-22
US-09-388-316C-22
US-09-388-316C-22
US-08-837-199A-6
US-08-837-199A-6
US-08-837-199A-6
US-08-837-199A-1
US-08-838-316C-6
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US-08-838-316C-3
US-09-388-316C-3
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Sequence 21, Appli
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61 SLTSGLB	1 MFLATLY! 1 MFLATLY!	Query Match Best Local Similari Matches 468; Cons	GENERAL INFORMATION: GENERAL INFORMATION: APPLICANT: ROBERT D. TITILE OP INVENTION: NUMBER OF SEQUENCES: CORRESPONDENCE ADDRESSE: CORRESPONDENCE ADDRESSE: ADDRESSEE: DNA WAY CITY: SOUTH SAN FY STATE: CALIFORNIA COUNTRY: USA ZIP: 94080 COMPUTER READABLE FOR MEDIUM TYPE: 3.5 i COMPUTER: IBM PC COPERATING SYSTEM: SOFTWARE: WinPatin CURRENT APPLICATION NUMBER: FILING DATE: 18-FE CLASSIFICATION NUMBER: FILING DATE: 18-FE CLASSIFICATION NUMBER: FILECOMMUNICATION INFORM NAME: TOSCCHIA, PhD REGISTRATION NUMBER REGISTRATION FOR SEQ ID: TELEPAX: 650/922-9 INFORMATION FOR SEQ ID: SEQUENCE CHARACTERIST LENGTH: 468 amino TYPE: Amino Acid TOPOLOGY: Linear	ESULT 1 S-08-802-805D-21 Sequence 21, Applicat Patent No. 6372453	28 1108.5 44.6 29 1100 44.2 31 1100 44.2 32 1100 44.2 33 1099.5 44.2 34 1099.5 44.2 35 1099.5 44.2 36 1099.5 44.2 37 1099.5 44.2 38 1099.5 44.2 39 1099.5 44.2 30 1099.5 44.2 31 1099.5 44.2 32 1099.5 44.2 33 1099.5 44.2 36 1099.5 44.2 37 1099.5 44.2 38 1099.5 44.2 39 1099.5 44.2 30 1099.5 44.2 31 1099.5 44.2 32 1099.5 44.2 33 1099.5 44.2 36 1099.5 44.2 37 1099.5 44.2 38 1099.5 44.2 39 1099.5 44.2 30 1099.5 44.2 31 1099.5 44.2 32 1099.5 44.2 33 1099.5 44.2 36 1099.5 44.2 37 1099.5 44.2 38 1099.5 44.2 39 1099.5 44.2 30 1099.5 44.2 30 1099.5 44.2 31 1099.5 44.2 32 1099.5 44.2 33 1099.5 44.2 36 1099.5 44.2 37 1099.5 44.2 38 1099.5 44.2 39 1099.5 44.2 30 1099.5 44.2 30 1099.5 44.2 31 1099.5 44.2 32 1099.5 44.2 33 1099.5 44.2 36 1099.5 44.2 37 1099.5 44.2 38 1099.5 44.2 39 1099.5 44.2 30 1
AKDECRSAMEALKOKSLY	FALPLLDLLMS	100.0%; Sco ty 100.0%; Prec ervative 0; Mi	GENERAL INFORMATION: GENERAL INFORMATION: HUMBER OF INVENTION: HUMBER OF SEQUENCES: ADDRESSE: AD	ion US/088028	464 4 US-08-664 3 US-08-664 3 US-08-664 3 US-08-664 3 US-08-664 3 US-08-664 4
NCRCKRGMKKEKNCLR	AEVSGGDRLDCVKASDQCLKEQSCS	e 2488; DB 3; . No. 5.1e-233; smatches 0;	eptor floppy disk	ALIGNMENTS 05D	-861-990-9 -957-063-18 -487-685-18 -802-805D-18 -802-805D-18 -957-063-16 -487-685-16 -802-805D-16 -803-116-16 -803-1199A-10 -837-199A-20 -837-199A-24 -220-528-64
SLTSGLEAKDECRSAMEALKOKSLYNCRCKRGMKKEKNCLRIYMSMYQSLQGNDLLEDS: 	CSTKYRTLRQCVAGKETNF 	Length 468; Indels 0; Gaps			Sequence 9, A Sequence 18, Sequence 18, Sequence 18, Sequence 16, Sequence 16, Sequence 16, Sequence 16, Sequence 11, Sequence 21, Sequence 22, Sequence 23, Sequence 23, Sequence 21, Sequence 21, Sequence 63, Sequence 64,
P 120	4 60 - 4	0,			Appli Appli

61 SLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSP 120

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; LENGTH: 468
; TYPE: PRT
; ORGANISM: RAT
US-08-837-199A-4
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US-08-837-199A-4
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CURRENT APPLICATION NUMBER: US/08/837,199A
CURRENT FILING DATE: 1997-04-14
PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR FILING DATE: 1996-04-22
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR FILING DATE: 1996-05-09
NUMBER OF SEQ ID NOS: 47
SOFTWARE: PatentIn version 3.1
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Patent No. 6455277
GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: FOX, GARY M.
APPLICANT: JING, SHUQIAN
APPLICANT: WEN, DUANZHI
TITLE OF INVENTION: GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR RECEPTOR
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                        PNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLLAYSGLIGTVMTPN
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APPLICANT: Genente
APPLICANT: Klein,
APPLICANT: Moore,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No.
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                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION UNMER: PCT/US97/04363
APPLICATION UNMER: PCT/US97/04363
FILING DATE: 13-Mar-1997
APPLICATION NUMBER: 08/615902
FILING DATE: 14-Mar-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/618236
PRIOR APPLICATION NUMBER: 19 618236
PRIOR APPLICATION NUMBER: 08/618236
ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: 90996P1PCT
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                             TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                         PEATURE:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 94080

COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA;
                OTHER INFORMATION: FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: RYAN, ANNE M.
TITLE OF INVENTION: USES OF GDNF AND GDNF RECEPTOR NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/860,370
NAME/KEY: Potential Glycosolation Site
                                                                          NAME/KEY: Mature Protein N-terminal LOCATION: 25-427
                                                                                                                                      OTHER INFORMATION:
                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                         IDENTIFICATION METHOD:
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South San Francisco
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Moore, Mark W.
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RESULT 4
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Patent No. 6677135
GENERAL INFORMATION:
APPLICANT: BIOGEN, INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 2488; DB 4; Best Local Similarity 100.0%; Pred. No. 5.1e-233; Matches 468; Conservative 0; Mismatches 0;
              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                      TITLE OF INVENTION: Ret L
TITLE OF INVENTION: and R
NUMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
ADDRESSEE: Biogen, Inc.
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IDENTIFICATION METHOD:
OTHER INFORMATION:
FEATURE:
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                                                                               ZIP: 02142
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14 Cambridge Center
                                                                                             USA
PatentIn Release #1.0,
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 Version #1.30
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Best Local Similarity
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SEQUENCE CHARACTERISTICS:
LENGTH: 468 amino acids
TYPE: amino acid
TOPOLOGY: linear
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APPLICATION NUMBER: US 60/021,859
FILING DATE: 16-JUL-96
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/043,533
FILING DATE: 10-APR-97
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: PCT/US97/07726
FILING DATE: 07-MAY-97
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APPLICATION NUMBER: US
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REGISTRATION NUMBER: 34,199
REFERENCE/DOCKET NUMBER: A0
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                      GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS 468
                                                                      QTTTATTTTAERVKNKPLGPAGSENEI PTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF
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   GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS
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US-09-388-316C-21

iS-09-388-316C-21

; Sequence 21, Application

; Patent No. 6777196
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PRIOR APPLICATION NUMBER: 08/747,842
PRIOR FILING DATE: 1996-11-13
PRIOR FILING DATE: 1996-11-13
PRIOR PRILING DATE: 1996-11-13
PRIOR PRILING DATE: 1996-11-13
PRIOR APPLICATION NUMBER: 60/006,619
PRIOR PILING DATE: 1996-04-16
PRIOR PILING DATE: 1996-04-16
PRIOR PILING DATE: 1996-04-16
PRIOR PILING DATE: 1996-04-27
PRIOR APPLICATION NUMBER: 60/020,638
PRIOR APPLICATION NUMBER: 60/020,638
PRIOR PILING DATE: 1996-06-27
NUMBER: 60/020,639
PRIOR PILING DATE: 1996-06-27
NUMBER: 05/050,639
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; ORGANISM: Rattus
US-08-861-990-1
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APPLICANT:
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APPLICANT: Suvanto, Petro
APPLICANT: Trupp, Miles
APPLICANT: Saarma, Mart
TITLE OF INVENTION: Glial Cell Line-Derived Neurotropic Factor Receptors
FILE REFERENCE: CEPH0418
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100.0%; Pred. No. 5.1e-233;
vative 0; Mismatches 0;
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APPLICANT: ROSENTHAL, ARNON
APPLICANT: HURS, MARY A.
TITLE OF INVENTION: NEURTURIN RECEPTOR
FILL REFERENCE: GENENT.45A2DV1
CURRENT APPLICATION NUMBER: US/09/388,316C
CURRENT FILING DATE: 1999-09-01
PRIOR APPLICATION NUMBER: 09/024,665
PRIOR FILING DATE: 1998-02-17
PRIOR PRICING DATE: 1998-02-17
PRIOR FILING DATE: 1997-10-24
PRIOR FILING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/049,818
PRIOR APPLICATION NUMBER: 60/049,818
PRIOR APPLICATION NUMBER: 60/038,839
PRIOR APPLICATION NUMBER: 60/038,839
PRIOR FILING DATE: 1997-02-18
PRIOR APPLICATION NUMBER: 60/038,839
PRIOR FILING DATE: 1997-02-18
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ORGANISM: Ratticus
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RESULT 7
US-08-837-199A-2
Sequence 2, Application US/08837199A
Patent No. 6455277
GENERAL INFORMATION:
APPLICANT: FOX, GARY M.
APPLICANT: JING, SHUQIAN
APPLICANT: WEN, DUANCHI
TITLE OF INVENTION: GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR RECEPTOR
FILE REFERENCE: A-401C
CURRENT APPLICANTION NUMBER: US/08/837,199A
CURRENT FILING DATE: 1997-04-14
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420 420 360 360 300 240 240 180 180 120 120 60

US/09388316C

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PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR FILING DATE: 1996-04-22
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR FILING DATE: 1996-05-09
NUMBER OF SEO ID NOS: 47
SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
LENGTH: 465
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; LOCATION: (2256) . (2294)
; OTHER INFORMATION: N in positions 2256 to 2294 indicates positions of divergence
; OTHER INFORMATION: tween different receptor clones
US-08-837-199A-2
RESULT 8
US-09-388-316C-22
; Sequence 22, Application US/09388316C
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Best Local Similarity
Matches 434; Conserv
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NAME/KEY: misc feature \
LOCATION: (2078)..(2078)
OTHER INFORMATION: N in position 2078 indicates a OTHER INFORMATION: ferent receptor clones
NAME/KEY: misc feature
LOCATION: (2107)..(2107)
OTHER INFORMATION: N in position 2107 indicates a OTHER INFORMATION: ferent receptor clones
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LOCATION: (2241)..(2241)
OTHER INFORMATION: N in position 2241 indicates a position of divergence between dif
OTHER INFORMATION: ferent receptor clones
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LOCATION: (2250)..(2250)
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92.7%; Pred. No. 2.4e-216;
Live 18; Mismatches 13;
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RESULT 9 US-08-837-199A-12

Sequence 12, Application US/08837199A Patent No. 6455277 GENERAL INFORMATION:

APPLICANT: FOX, GARY M.
APPLICANT: JING, SHUQIAN
APPLICANT: WEN, DUANZHI
TITLE OF INVENTION: GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR RECEPTOR
FILE REFERENCE: A-401C

CURRENT APPLICATION NUMBER: US/08/837,199A

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PRIOR APPLICATION NUMBER: 09/024,665
PRIOR FILING DATE: 1998-02-17
PRIOR APPLICATION NUMBER: 60/063,258
PRIOR FILING DATE: 1997-10-24
PRIOR PELLING DATE: 1997-00-98
PRIOR PELLING DATE: 1997-06-09
PRIOR APPLICATION NUMBER: 60/038,839
PRIOR PELING DATE: 1997-02-18
NUMBER OF SEQ ID NOS: 30
SOFTWARE: FRAETSEQ for Windows Version 4.
SEQ ID NO 22
LENGTH: 465
TYPE: PRI
ORGANISM: Homo sapiens
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Best Local Simi
Matches 434;
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APPLICANT: ROSENTHAL, ARNON
APPLICANT: HYNES, MARY A.
TITLE OF INVENTION: NEURTURIN RECEPTOR
FILE REFERENCE: GENENT.45A2DV1
CURRENT APPLICATION NUMBER: US/09/388,316C
CURRENT FILING DATE: 1999-09-01
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                                                                      QTTTATTTTALRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGNTHLCISNGNY
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92.7%; Pred. No. 2.4e
tive 18; Mismatches
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2.4e-216;
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360 360

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240 240 180 180 120 120 60

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GENERAL INFORMATION:
APPLICANT: Ibanez, Carlos F.
APPLICANT: Arumae, Urmas
APPLICANT: Sariola, Hannu
APPLICANT: Sariola, Hannu
APPLICANT: Suvanto, Petro
APPLICANT: Suvanto, Metro
APPLICANT: Saarma, Mart
TITLE OF INVENTION: Glial Cell Line-Derived Neurotropic Factor Receptors
FILE REFERENCE: CEPH0418
CURRENT APPLICATION NUMBER: US/08/861,990
CURRENT FILING DATE: 1997-05-22
PRIOR APPLICATION NUMBER: 08/747,842
PRIOR APPLICATION NUMBER: 60/006,619
PRIOR APPLICATION NUMBER: 60/006,619
PRIOR APPLICATION NUMBER: 60/006,619
PRIOR FILING DATE: 1995-11-13
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PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR FILING DATE: 1996-04-22
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR FILING DATE: 1996-05-09
NUMBER OF SEQ ID NOS: 47
SOFTWARAE: Patentin version 3.1
SEQ ID NO 12
LENGTH: 463
TYPE: PRT
ORGANISM: HUMAN
FEATURE:
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US-08-861-990-8
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; LOCATION: (1)..(539)
; OTHER INFORMATION: No. 6455277e= "1 to 539 is -237 to 301 of Figure 5 21bcon"
US-08-837-199A-12
                                                                                                                                                                                                                                                                                       Sequence 8, Application US/08861990 Patent No. 6696259
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Best Local Similarity
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Pred. No. 7.2e-216;
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; LENGTH: 465
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; ORGANISM: Homo s
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PRIOR FILING DATE: 1996-04-16
PRIOR PELICATION NUMBER: 60/021,965
PRIOR FILING DATE: 1996-06-27
PRIOR APPLICATION NUMBER: 60/020,638
PRIOR FILING DATE: 1996-06-27
PRIOR PELICATION NUMBER: 60/020,639
PRIOR PILING DATE: 1996-06-27
PRIOR FILING DATE: 1996-06-27
NUMBER OF SEQ ID NOS: 11
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Best Local Similarity
Matches 433; Conserv
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SEQ ID NO 8
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                      GKDGLAGASSHITTKSMAAPPSCSISSLPVLMLTALAALLSVSLAETS 468
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 EKEGL-GASSHITTKSMAAPPSCGLSPLLVRVVTALSTLL--SLTETS
                                                                                         QTTTATTTTAFRVKNKPLGPAGSENEIPTHYLPPCANLQAQKLKSNVSGSTHLCLSDSDF 420
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                                                                      QTTTATTTTALRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGNTHLCISNGNY
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US-08-837-199A-6
Sequence 6, Application US/08837199A
Sequence 6, Application US/08837199A
Patent No. 6455277
GENERAL INFORMATION:
APPLICANT: FOX, GARY M.
APPLICANT: FOX, GARY M.
APPLICANT: WEN, DUANZHI
TITLE OF INVENTION: GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR RECEPTOR
FILE REFERENCE: A-401C
CURRENT APPLICATION NUMBER: US/08/837,199A
CURRENT APPLICATION NUMBER: US/08/837,199A
CURRENT FILING DATE: 1995-04-14
PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR FILING DATE: 1996-04-22
PRIOR FILING DATE: 1996-04-22
PRIOR FILING DATE: 1996-05-09
NUMBER OF SEG ID NOS: 47
SOFTWARE: Patentin version 3.1
SEG ID NO 6
LENGTH: 465
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RESULT 12
US-08-837-199A-10
US-08-837-199A-10
US-08-837-199A-10
Sequence 10, Application US/08837199A
Patent No. 6455277
Patent No. 6455277
PATENT NOOK, GARY M.
PAPLICANT: JING, SHUQIAN
PAPLICANT: WEN, DUANZHI
PITLE OF INVENTION: GELIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR RECEPTOR
FILE REFERENCE: A-401C
CURRENT APPLICATION NUMBER: US/08/837,199A
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Best Local Similarity
Matches 433; Conserv
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LOCATION: (1). (510)
OTHER INFORMATION: note="1 to 510 is -237 to 272 of Fig 5 Hsgr-2lbf"
NAME/KEY: misc feature
LOCATION: (1). (539)
OTHER INFORMATION: note="1 to 539 is -237 to 301 of Fig 5 Gdnfr"
NAME/KEY: misc feature
LOCATION: (2078). (2078)
OTHER INFORMATION: N in position 2078 indicates a position of divergence between diffOTHER INFORMATION: ferent receptor clones
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LOCATION: (2256)..(2294)
OTHER INFORMATION: N in positions
OTHER INFORMATION: ween different
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LOCATION: (1091)..(1091)
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ORGANISM: HUMAN
FEATURE:
NAME/KEY: misc feature
LOCATION: (5)...(5)
OTHER INFORMATION: The ')
NAME/KEY: misc feature
LOCATION: (1)...(537)
OTHER INFORMATION: No. 6:
NAME/KEY: misc feature
LOCATION: (550)...(550)
OTHER INFORMATION: N in J
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NUMBER OF SEQ ID NOS: 47
SOFTWARE: PatentIn version 3.:
SEQ ID NO 10
LENGTH: 463
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Best Local Similarity 92.7
Matches 429; Conservative
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PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR FILING DATE: 1996-04-22
PRIOR APPLICATION NUMBER: US 60/017,221
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                                                                                                                     YIDSSSLSVAPWCDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFGNGSDVTVWQPAFPV
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-GASSHITTKSMAAPPSCGLSPLLVLVVTALSTLLSLT
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92.7%; Pred. No. 2.2e-219
tive 20; Mismatches 13
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US-08-802-805D-22
; Sequence 22, Application US/08802805D
; Patent No. 6372453
; GENERAL INFORMATION:
APPLICANT: Robert D. Klein
ITILE OF INVENTION: Neurturin Receptor
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 1 DNA Way
CITY: South San Francisco
STATE: California
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                            Sequence 11, Application US/09187906
Patent No. 6677135
GENERAL INFORMATION:
APPLICANT: BIOGEN, INC.
TITLE OF INVENTION: Ret Ligand (RetL)
TITLE OF INVENTION: and Renal Growth
NUMBER OF SEQUENCES: 21
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TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO:
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LENGTH: 460 amino acids
TYPE: Amino Acid
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NAME: TOSCOLIA, PhD., Timothy
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P11
TELECOMMUNICATION INFORMATION:
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CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/802,805D
FILING DATE: 18-Feb-1997
CLASSIFICATION: 536
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MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                   CORRESPONDENCE
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Local Similarity 91.7%; Pred. No. 1.3e-212;
1e8 429; Conservative 18; Mismatches 13;
      ADDRESSEE:
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    Biogen, Inc
                  ADDRESS:
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; MOLECULE TYPE: protein US-09-187-906-11
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FILING DATE: 07-MAY-97
APPLICATION NUMBER: US 60/017,427
FILING DATE: 08-MAY-96
PRICH APPLICATION DATA:
APPLICATION NUMBER: US 60/019,300
FILING DATE: 07-JUN-96
PRICH APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acids
TOPOLOGY: linear
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REGISTRATION NUMBER: 34.199
REFERENCE/DOCKST NUMBER: A0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-679-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 460 amino acid
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/187,900
FILING DATE:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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FILING DATE: 10-APR-97
ATTORNEY/AGENT INFORMATION:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
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les 429; Conserv
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                    YVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV
                                                                        YEPVNSRLSDIFRVVPFIS----VEHIPKGNNCLDAAKACNLDDICKKYRSAYITPCTT
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YIDSSSLSVAPWCDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFGNGSDVTVWQPAFPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91.6%; Score 2278; DB 4;
91.7%; Pred. No. 1.3e-212;
tive 18; Mismatches 13;
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356 QTTTATTTTALRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGNTHLCISNGNY 415

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                                                                                                                                                                                                                                                                                   ; MOLECULE TYPE: protein US-09-187-906-9
                                                                                                                                                                                                                                                                                                                                         TELEFAX: 617-679-2400
TELEFAX: 617-679-2838
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 346 amino acida
TYPE: amino
                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 317; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 9, Application US/09187906 Patent No. 6677135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:

APPLICATION NUMBER: PCT/US97/07726

FILING DATE: 07-MAY-97

APPLICATION NUMBER: US 60/017,427

FILING DATE: 08-MAY-96

PRIOR APPLICATION DATA:

APPLICATION DATA:

APPLICATION UMBER: US 60/019,300

FILING DATE: 07-JUN-96

PRIOR APPLICATION DATA:

APPLICATION UMBER: US 60/043,533

FILING DATE: 10-APR-97

ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: BIOGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 02142

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: BIOGEN, INC.
TITLE OF INVENTION: Ret Ligand (RetL) for Stimulating Neural
TITLE OF INVENTION: and Renal Growth
NUMBER OF SEQUENCES: 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 2:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: A0 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                             LENGTH: 346 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Kaplan, Warren A. REGISTRATION NUMBER: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/187,906 FILING DATE: CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 14 Cambraidge CITY: Cambridge STATE: MA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                        175 ITPCTTSMSNEVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQTIVPVCS
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                                                                                                                    115 LLEDSPYEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCKKYRSAY 174
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                                                                                         1 LLEDSPYEPVNSRLSDIFRVVPFIS----VEHIPKGNNCLDAAKACNLDDICKKYRSAY
ITPCTTSVSNDVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDTACTERRRQTTVPVCS 115
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                                                                                                                                                                               67.8%; Score 1686; DB 4; Length 346; nilarity 89.5%; Pred. No. 2.9e-155; Conservative 17; Mismatches 12; Indels
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14 Cambridge Center
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296 IŚNGNYEKEĞL-ĠAŚSHITTKSMAAPPŚĆGLŚPLLVLVVTALSTLLŚLTETŚ 346	415 LSDSDFGKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS 468	236 QPAFPVQTTTATTTTALRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGNTHLC 295	355 QPAPPVQTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLC 414	176 TVMTPNYIDSSSLSVAPWCDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFGNGSDVTVW 235	295 TVMTPNYVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFXDNTCLKNAIQAFGNGSDVTMW 354	116 YEEREKPNCLNLQDSCKTNYICRSRLADFFTNCQPESRSVSSCLKENYADCLLAYSGLIG 175	235 YEERERPNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLLAYSGLIG 294

Search completed: February 17, 2005, 09:49:08 Job time : 28 secs

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Title: Perfect score: Sequence: OM protein - protein search, using sw model Run on: February 17, 2005, 08:52:13 ; Search time 44 Seconds (without alignments) 1023.396 Million cell updates/sec US-10-033-350-2 2488 1 MFLATLYFALPLLDILMSAE......PVLMLTALAALLSVSLAETS 468 GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.

Searched: BLOSUM62 Gapop 10.0 , Gapext 0.5 283416 segs, 96216763 residues

Scoring table:

Total number of hits satisfying chosen parameters:

283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Database : Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17		15	14	13	12	11	10	9	80	7	6	5	A	ω	2	_	Regult No.	
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alpha-51D-immobili	alpha-51D immobili	surface protein ty	õ	ື	eceptor	-2-macro		major surface glyc	LDL-receptor-relat	splice		hypothetical prote	glycoprotein A - P	o	98	۲		_	_	hypothetical prote	ř		μ.		kocyte	cell-fate determin	hypothetical prote	GPI-linked recepto	on	

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surface protein 51	cag pathogenicity	hypothetical prote	hypothetical prote	major surface glyc	hypothetical prote	flocculation prote	Xotch protein - Af	zonadhesin - mouse	transmembrane prot	hypothetical prote	spore coat protein	G surface protein	hypothetical prote	protein F11C7.4 [i	hypothetical prote

ALIGNMENTS

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289 YLGLIGTANTPNFISKVNTTVALSCTCRGSGNLQDECEQLERSFSQNPCLVEAIAA 344	289 YSGLIGTVMTPNYVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQA 344	229 IVPVCSYEERERPNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLLA 288 :	171 RSAYITPCTTSMSNEVCNRRKCHKALRQFFDKVPAKHSYGMLFCSGRDIACTERRRQT 228	117 EDSPYEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCKKY 170	58 TNFSLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQ-GNDLL 116	11 PLLDILMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKE 57	/ Match 20.3%; Score 505.5; DB 2; Length 397; Local Similarity 35.1%; Pred. No. 2.6e-30; les 125; Conservative 40; Mismatches 148; Indels 43; Gaps 12;	JE0082 JE0082 GPI-linked receptor precursor - mouse N;Alternate names: GFRalpha-3 C;Species: Mus musculus (house mouse) C;Date: 21-May-1998 #sequence_revision 29-May-1998 #text_change 09-Jul-2004 C;Accession: JE0082 C;Accession: JE0082 R;Nomoto, S; Yang, L.X.; Kiuchi, K. Biochem. Biophys. Res. Commun. 244, 849-853, 1998 A;Title: Molecular cloning and expression analysis of GFRalpha-3,a novel cDNA related to A;Reference number: JE0082; MUID:98205811; PMID:9535755 A;Accession: JE0082 A;Residues: 1-397 < NOMA A;Residues: 1-397 < NOMA A;Residues: 1-397 < NOMA A;Residues: UNIFROT:035118; DDBJ:AB008833; NID:g2627159; PIDN:BAA23562.1; PID:g2 C;Comment: This protein plays a distinct role in cell survival and differentiation. C;Superfamily: Mus musculus GPI-linked receptor C;Keywords: glycoprotein F;1-25/Domain: signal sequence #status predicted <sig>F;380-397/Region: hydrophobic F;32,145,306/Binding site: carbohydrate (Asn) (covalent) #status predicted</sig>	

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A;Molecule type: DNA
A;Residues: 1-3051 <GMI>
A;Residues: 1-3051 <GMI>
A;Residues: 1-3051 <GMI>
A;Cross -references: EMBL:Z30423; NID:g458479; PID:g458485
C;Genetics: 66/1; 166/3; 201/2; 355/1; 404/1; 427/2; 794/1; 892/1; 952/2; 1041/1; 1146/1;
A;Introns: 96/1; 166/3; 201/2; 355/1; 404/1; 427/2; 794/1; 892/1; 952/2; 1041/1; 1146/1;
F;512-679/Domain: von Willebrand factor type A repeat homology <VWA1>
F;754-793/Domain: fibronectin type II repeat homology <2F1>
F;1201-1244/Domain: EGF homology <EGF>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Caenornal
C;Date: 07-Oct-1994
C;Accession: S42373
                                                                                                                                              cell-fate determining gene Notch2 protein - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text_change 16-Aug-2004 C;Accession: A49128 C;Accession: A49128 C;R;Weinmaster, G.; Roberts, V.J.; Lemke, G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Reference number: S42368
A; Accession: S42373
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C;Species: Caenorhabditis elegans
C;Date: 07-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 09-May-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    submitted to the EMBL Data Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Smith,
A;Status: preliminary; not compared with conceptual translation A;Molecule type: mRNA A;Residues: 1-2471 <WEI>
                                                             Development 116, 931-941, 1992
A;Title: Notchh: a second mammalian Notch gene.
A;Reference number: A49128; MUID:93202015; PMII
A;Accession: A49128
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Matches 97
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                                                                                                                                                                                                                                                                                                                                                     L----NTCDENADCVDTPDGYTCQCYGGFVDVSSNANLPPGRVCTVQTT
                                                                                                                                                                                                                                                                                                                                                                                                LNFFKDNTCLKNA---
                                                                                                                                                                                                                                                                                                                                                                                                                                           NECASSDNECSPYARCIDATNGYACQCL-DGFIDVSSRYNKPPGRQCTNSNNECSE--KS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SNCLKEN-----YADCLLAYSGLIGTVMTPNYVD-SSSLSVAPWCDCSNSGNDLEDCLKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FRYTDGSCRVYSACSKRNTCDKNAICLNRFDSYTCQCRPGYIDLSADLTNAPGRICKELI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CRSGYADISPVSQPGRICRARVNECSNKEKYNVDCSENAICADTEHSYSCRCRPGFADVS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADGFTCRCKDSYRDESSDTLKHPGKNCVR----TVQPDPPECDVSDPMSCDPAKREV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAEAECRETPIGPMCQCVSGYVDVSRQHGRPAGRVCRAVVNECAEGRHDCSSHATCIDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PGRICTKPVEKIKTDLKDTSFSTDDGCDPKN----PKCGANEACVQRHGQHNCECVETA
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18.3%;
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Pred. No. 0.017;
                                                                                                                                                                                                                                                                                                                                                                                             --IQAFGNGSDVTMWQPAPPVQTTTATTT 368
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                                                                                     PMID:1295745
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RESULT 4 S04847

leukocyte adhesion protein CD18 precursor - mouse C;Species: Mus musculus (house mouse) C;Date: 07-Jun-1990 #sequence_revision 07-Jun-199(C;Accession: \$04847

07-Jun-1990

#text_change

09-Jul-2004

A; Reference number: A; Accession: S04847

R;Wilson, R.W.; O'Brien, W.E.; Beaudet, A.L. Nucleic Acids Res. 17, 5397, 1989
Nucleic Acids Res. 17, 5397, 1989
A;Title: Nucleotide sequence of the cDNA from the mouse leukocyte adhesion protein A;Reference number: S04847; MUID:89345112; PMID:2569711

CD18.

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F;1909-1941/Domain: ankyrin repeat homology <AN1>F;1909-1941/Domain: ankyrin repeat homology <AN2>F;1904-1975/Domain: ankyrin repeat homology <AN3>F;1976-2008/Domain: ankyrin repeat homology <AN4>F;1976-2008/Domain: ankyrin repeat homology <AN4>F;2009-2041/Domain: ankyrin repeat homology <AN5>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A,Cross-references: UNIPROT:090W30
A,Experimental source: Schwann cell
A,Kote: sequence extracted from NCBI backbone (NCBIP:127811)
C,Superfamily: Notch protein; ankyrin repeat homology; EGF h
F,264-295/Domain: EGF homology <EGX1>
F,979-983/Domain: EGF homology <EGF1>
F,877-990/Domain: EGF homology <EGF1>
F,970-90/Domain: EGF homology <EGF>
F,1029-1060/Domain: EGF homology <EGF>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F;1067-1098/Domain: EGF homology <EGX3>
F;1153-1184/Domain: EGF homology <EGF3>
F;1191-1222/Domain: EGF homology <EGX4>
F;1891-1908/Domain: ankyrin repeat homology
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Best Local Similarity
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1642
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DSPYEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDT--CKKYRSAYI 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---EAKDECRSAMEALKOKSL-----YNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLE 117
NTDAAAALLASHAIQGTLSYPLVSVVSESEDPRNTPLLYLLAVAVVIILFL
                                          KDGLAGA--SSHITTKSMAAPPSCSLS-----SLPVLMLTALAALLSVSL 464
                                                                                       GALMVYPYYGEKSAAMKKQKVARRSLP---DEQEQEIIGSKVFLEIDNRQCVQDSDQCFK
                                                                                                                                                                          EECGWDGLDCAADQPENLAEGILVIVVLLPPEQLLQDSRSFLRALGTLLHTNLRIKQDSQ
                                                                                                                                                                                                                  IQAFGNGSDVTMWQP-----APPVQTTTATTT------TAFRVKNKPL
                                                                                                                                                                                                                                                            CTSSLRCWEYINNQCDELCNTAECL-FDNFECQRNSKTCKYDKYCADHFKDNHCDKGCNN
                                                                                                                                                                                                                                                                                                                                                                                                                                    KC--RRGEQCVHTASGPHCFCPNHKDCESGCASNPCQHGGTCYPQRQPPYYSCRCSPPFW 1407
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Pred. No. 0.25;
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                         UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
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Gapop 10.0 , Gapext 0.5
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2488
1 MFLATLYFALPLLDLIMSAE......PVLMLTALAALLSVSLAETS 468
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.
SUMMARIES
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129	129	129.5	129.5	130.5	131	134.5	135.5	150	150	154.5	168	194.5	204.5	
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2703	771	1219	1101	1289	2471	2585	814	3767	3183	502	238	77	393	
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NOTC_DROME	ITB2_MOUSE	Q95XG5	Q964D2	Q75JÜ6	NTC2_RAT	Q23587	Q7R1V1	MUA3_CAEEL	Q65ZC2	Q7QDE4	Q6SJD9	Q91Y87	Q6SJE0	
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r.", uced ptor. form form form kidney	FROM N.A. istar; TISSUE=Kidney; j97322356; PubMed=91,77201; DOI=10.1073/pnas M., Hession C.A., Worley D.S., Carmillo P. M., Hession C.A., Worley D.S., Carmillo P. R.B., Cate R.L.; R.B., Cate R.L.; ediated by two different cell-surface acce ediated by two different cell-surface acce tl. Acad. Sci. U.S.A. 94:6238-6243(1997). FROM N.A. 1. Googman L., de Sauvage F., Stone D. J.T.S., Googman L., de Sauvage F., Stone D. J.T.S., Googman L., Moore M.W., Buj-Bello A. H.S., Goddard A., Moore M.W., Buj-Bello A.	Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus. NCBI_TaxID=10116; [1] SEQUENCE FROM N.A. TISSUE=Retina; MEDLINE=962705.3; PubMed=8674117; DOI=10.1016/S0092-8674(00)81311-2; MEDLINE 962705.3; PubMed=8674117; DOI=10.1016/S0092-8674(00)81311-2; MEDLINE 962705.3; PubMed=8674117; DOI=10.1016/S0092-8674(00)81311-2; Jing S., Wen D., Yu Y., Holst P.L., Luo Y., Fang M., Tamir R., Antonio L., Hu Z., Cupples R., Louis JC., Hu S., Altrock B.W., FOX G.M.; "GONF-induced activation of the ret protein tyrosine kinase is mediated by GDNFR-alpha, a novel receptor for GDNF."; Cell 85:1113-1124(1996).	LT 1 RAT GFR1 RAT STANDARD; 062997; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sec) 05-JUL-2004 (Rel. 44, Last and GDNF family receptor alpha 1 k alpha) (GDNFR-alpha) (TGF-betd (RET ligand 1): Name=Gfra1; Synonyms=Gdnfra, k Rattus norvegicus (Rat).

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RESULT
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Matches 468
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CARBOHYD
CARBOHYD
LIPID
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DOMAIN
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                               GDNF receptor alpha (Glial cell 1 family receptor alpha 1).
Name=Gfral; Synonyme=GDNFR-alpha;
                                                   01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
GDNF receptor alpha (Glial cell line derived neurotrophic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U59486; AAC52663.1; -.
EMBL; U97142; AAC53300.1; -.
RGD; 2681; Gfra1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Glycoprotein; SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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S; PR01316; GDNI
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                                                                                                                                                                                                                                                                                                                                                           MFLATLYFALPLLDLIMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
                                                                                                                                                                    GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS
                                                                                                                                                                                                                                                                                                                                                                                                    SLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSP
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                                                                                                                                                                                                                                                                                                                                                                                                                                         MFLATLYFALPLIDILMSABVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
                                                                                                                                                          GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS
                                                                                                                                                                                                             QTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF
                                                                                                                                                                                                                                                   YVDSSSLSVAFWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV
                                                                                                                                                                                                                                                                                           PNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLLAYSGLIGTVMTPN
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llarity 100.0%;
Conservative 0;
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431
362
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                                                                                                        PRELIMINARY;
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1 24 Potential.
25 430 GDNF family receptor alpha 1.
31 468 Removed in mature form (Potential).
                                                                                                                                                                                                                                                                               LQDSCKTNYI CRSRLADFFTNCQPESRSVSNCLKENYADCLLAYSGLIGTVMTPN
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N-linked (GlcNAc. ..)
GPT-anchor amidated seri
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Pred. No. 2.5e-179;
; Mismatches 0;
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RC TISSUE-elfactory epithelium;

RX MEDLINE-22388257, PubMed=12477932; DOI=10.1073/pnas.242603899;

RA Strausberg R.D., Feingold E.A., Grouse L.H., Derge J.G.,

RA Altschul S.F., Zeeberg B., Buerow K.H., Schaefer C.F., Bhat N.K.,

RA Altschul S.F., Zeeberg B., Buerow K.H., Schaefer C.F., Bhat N.K.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Jaramson R.D., Mullahy S.J.,

RA Brownstein M.J., Wardy D.M., Feters G.J., Abramson R.D., Mullahy S.J.,

RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Wilting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Mitting M., Touchman J.W., Green E.D., Dickson M.C.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

RA Rodriguez A.C., Salska U., Smailus D.E., Schnerch A., Schein J.E.,

Jones S. J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 457
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EMBL; BC054378; AAH54378.1; -.
MGD; MGI:1100842; Gfra1.
GO; GO:0005615; C:extracellular space; TAS.
GO; GO:0019898; C:extrinsic to membrane; TA
GO; GO:0004872; F:receptor activity; TAS.
GO; GO:0009653; P:morphogenesis; TAS.
GO; GO:0009653; P:neurogenesis; TAS.
GO; GO:0007169; P:transmembrane receptor pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR003438; GDNF_receptor:
InterPro; IPR003503; GDNF_receptor:
Pfam; PF02351; GDNF; 1.
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[2]
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MEDLINE=98252741; PubMed=9592044;
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TISSUE=Olfactory epithelium;
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c. Natl. Acad. Sci. U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
SMSNEVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQTIVPVCSYEERER
                                                                                                                                                                                                                                                          SLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYMSMYQSLQGNDLLEDSP
                                                                                                                                                                                                                                                                                                                                                                                 MFLATLYFALPLLDLLMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
                                                                                                                             YEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCKKYRSAYITPCTT
                                                                                                                                                                                                                                                                                                                                              MFLATLYFVLPLLDLLMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
                                                                                                                                                                                                                          SLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSP
                                                                                             YEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCKKYRSAYITPCTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 2458; DB 2;
Pred. No. 4.7e-177;
8; Mismatches 3;
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SEQUENCE
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01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
GDNF family receptor alpha 1 precursor (GFR-alpha 1) (GDNF receptor alpha) (TGF-beta related neurotrophic factor receptor
                                                                                           CHAIN
                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GFR1_MOUSE
                                                                                                       Glycoprotein;
SIGNAL
                                                                                                                             MGD; MGI:1100842; Gfra1.
InterPro; IPR003438; GDNF_receptor.
Pfam; PF02351; GDNF; 1.
PRINTS; PR01316; GDNFRECEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AB000800; BAA19185.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P97785;
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Dorsal root ganglion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=Gfral; Synonyms=Gdnfra, Trnr1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                  similarity).
SIMILARITY: Belongs to the GDNFR family.
                                                                                                                                                                                                                                                                                                                                                        similarity).

SUBUNIT: 2 molecules of GDNFR-alpha are thought to form a with the disulfide-linked GDNF dimer and with 2 molecules (By similarity).
                                                                                                                                                                                                                                                                                                                                            SUBCELLULAR LOCATION: Attached to the membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QTTTATTTAFRIKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDNDY
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431
362
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                                                                                                                  GPI-anchor;
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468
369
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r; Lipoprotein; Membrane; Receptor; Signal Potential.

GDNF family receptor alpha 1.

Thr-rich.

N-linked (GlcNAc. . .) (Potential).

N-linked (GlcNAc. . .) (Potential).

N-linked (GlcNAc. . .) (Potential).

OFI-anchor amidated serine (Potential).

GFI-anchor amidated serine (Potential)

GFI-anchor amidated serine (Potential).
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Best Local S
Matches 456
                                                                                                                                                                                                                    Zhong J., Annies M., Heumann R.;
Submitted (OCT-1997) to the EMBL/GenBank/DDBJ dai
EMBL; AJ002072; CAA05171.1; -.
PIR; S69080; S69080.
GO; GO:0004872; F:receptor activity; IEA.
InterPro; IPR003438; GDNF_receptor.
InterPro; IPR003503; GDNF_receptorA1.
Pfam; PF02151; GDNF; 1.
PRINTS; PR01317; GDNFRALPHA1.
PRINTS; PR01316; GDNFRALPHA1.
PRINTS; PR01316; GDNFRALPHA1.
PRINTS; PR01316; GDNFRALPHA1.
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01-JAN-1998 (TrEMBLrel.
01-JAN-1998 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
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Last annotation updat
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                                                                                                                                                        Score 2449.5;
Pred. No. 2e-1
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Pred. No. 1.3e-176;
B; Mismatches 4;
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                                                                                                                                     Mismatches
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                                                                                                               Query Match
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Matches 452
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035252;
01-JAN-1998
01-JAN-1998
                                                                                                                                                                                                          Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                            GO; GO:0007399; P:neurogenesis; IMP.
GO; GO:0007169; P:transmembrane receptor
InterPro; IPR003438; GDMF_receptor.
InterPro; IPR003503; GDNF_receptorA1.
Pfam; PF02351; GDNF; 1.
PRINTS; PR01317; GDNFRALPHA1.
                                                                                                                                                                                                                                                                                                                                                                          Dey B.K., Wong Y.W., Too H.P.; "Cloning of a novel murine isoform neurotrophic factor receptor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JAN-1998 (TrEMBLrel. 05, Creat 01-JAN-1998 (TrEMBLrel. 05, Last 01-JUN-2003 (TrEMBLrel. 24, Last CDNF receptor beta.

Name=Gfral; Synonyms=GDNFR-beta;
                                                                                                                                                                                                                                                   PRINTS; PR01317; GDNFRALPHA1. PRINTS; PR01316; GDNFRECEPTOR.
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; MGI:1100842; Gfral.
GO:0005615; C:extracellular space; TAS.
GO:0019898; C:extrinsic to membrane; TA
GO:0004872; F:receptor activity; TAS.
GO:0009653; P:morphogenesis; TAS.
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                     MFLATLYFVLPLLDLLMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
                                                MFLATLYFALPLLDLLMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
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Pred. No. 3.7e-174;
8; Mismatches 3;
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YIDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV
                                                                                                                                                                                   YVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV
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                                                                        QTTTATTTTAFRIKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDNDY
                                                                                              QTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLKSDSDF
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GFRI HUMAN STANDARD; PKI; 105 Am.
P56159; O15507; O43912;
01-NOV-1997 (Rel. 35, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
GDNF family receptor alpha 1 precursor (GFR-alpha 1) (GDNF alpha) (GDNFR-alpha) (TGF-beta related neurotrophic factor
"Human GFRA1: cloning, mapping, genomic structure, and candidate gene for Hirschsprung disease susceptibility. Genomics 48:354-362(1998).
                                                                                                                                                                                                                                                                    MEDIINE=9732336; PubMed=9177201; DOI=10.1073/pnas.94.12.6238; Sanicola M., Hession C.A., Worley D.S., Carmillo P., Ehrenfels C., Walus L., Robinson S., Jaworski G., Wei H., Tizard R., Whitty A., Pepinsky R.B., Cate R.L.;
Pepinsky R.B., Cate R.L.;
"Glial cell line-derived neurotrophic factor-dependent RET activation can be mediated by two different cell-surface accessory proteins.";
Proc. Natl. Acad. Sci. U.S.A. 94:6238-6243(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Substantia nigra;
MEDLINE=96270513; PubMed=8674117; DOI=10.1016/S0092-8674(00)81311-2;
Jing S., Wen D., Yu Y., Holst P.L., Luo Y., Fang M., Tamir R.,
Antonio L., Hu Z., Cupples R., Louis J.-C., Hu S., Altrock B.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           alpha) (GDNFR-alpha) (TGF-bei
(RET ligand 1)
Name=GFRA1; Synonyms=GDNFRA,
                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE=98207251; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "GDNF-induced activation of the mediated by GDNFR-alpha, a novel Cell 85:1113-1124(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                           E FROM N.A. (ISOFORM 1), AND VARIANTS ASN-85 AND =98207251; PubMed=9545641; DOI=10.1006/geno.1997.
M., Jing S., Bolk S., Bentley K., Nallabamy S., Chakravarti A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FROM N.A.
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A Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

A Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Roman K.J., Male S., Carninci P., Prange C.,

A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

A Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

A Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

A Hakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

A Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

A Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

A Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;

"Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VARIANTS ALA-366 AND ARG-371.

PubMed=1456559; DOI=10.1007/800439-003-1036-z;
Pasaaki A., Kanai M., Kijima K., Akaba K., Hashimoto M.,
Otaki S., Koizumi T., Kusuda S., Ogawa Y., Tuchiya K.,
Nakamura T., Hayasaka K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nakagawara A.;
"GDNF-induced differentiation and its enhancement by retigner-induced differentiation and its enhancement by retignery human neuroblastomas expressing c-Ret and GDNFR-cprimary human neuroblastomas expressing databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Substantia nigra;
Hishiki T., Kondoh K., Ichimiya S., Nimura Y., Seki N., Oz
Sakiyama S., Takahashi H., Ohnuma N., Tanabe M., Fujimura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Molecular analysis of congenital central hypoventilation syndrome.";
Hum. Genet. 114:22-26(2003)
-1- FUNCTION: Receptor for GDNF. Mediates the GDNF-induced
autophosphorylation and activation of the RET receptor (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hillman R.T., Green R.E., Brenner S.E.;
"An unappreciated role for RNA surveillance.";
Genome Biol. 5:RESEARCH008.1-RESEARCH008.16(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SPLICE ISOFORM(S) THAT ARE POTENTIAL NMD TARGET(S)
PubMed=14759258; DOI=10.1186/gb-2004-5-2-r8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. (ISOFORM
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IsoId=P56159-2; Sequence=VSP_001660;
Note=May be produced at very low levels due to a
codon in the mRNA, leading to nonsense-mediated
SIMILARITY: Belongs to the GDNFR family.
                                                                                                                                                                                                                                                                                                                                                                                                                     SUBUNIT: 2 molecules of GDNFR-alpha a with the disulfide-linked GDNF dimer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity).
                                                                                                                                                                                                                                               Event=Alternative
                                                                                                                                                                                                                                                                               ALTERNATIVE PRODUCTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                          IsoId=P56159-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                        similarity)
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                                                                                                                                                                                                                                           splicing; Named isoforms=2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long modified and this statement is not removed: entities requires a license agreement (Secons early and an email to license@isb-sib.ch).
                                                                                                                                                                                                  VARIANT
                                                                                                                                                                                                                               VARIANT
                                                                                                                                                                                                                                                              VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
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Alternative splicing; Glycoprotein; GPI-anchor; Lipoprotein; Membrane;
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                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                       PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GO:0019898; C:extrinsic to membrane; NAS
GO:0001872; F:receptor activity; NAS.
GO:0007166; P:cell surface receptor link
:erPro; IPR003438; GDNF_receptor.
an; PF02351; GDNF_receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  , U97144, AAC51696.1,
, AF038420; AAC39693.1; -
, AF038411; AAC39693.1; J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APO38412; AAC39693.1; JAPO38413; AAC39693.1; JAPO38415; AAC39693.1; JAPO38415; AAC39693.1; JAPO38416; AAC39693.1; JAPO38416; AAC39693.1; JAPO38419; AAC39693.1; JAPO38419; AAC39693.1; JAPO38419; AAC39693.1; JAPO38419; AAC39693.1; JAPO58999; AAC14431.1; JAPO58999; AAC14431.1; JAPO58993; AAC14431.1; JAPO58993; AAC14431.1; JAPO58993; AAC14431.1; JAPO58993; AAC14431.1; JAPO58993; AAC14431.1; JAPO58994; AAC14431.1; JAPO58995; AAC14431.1; JAPO58995; AAC14431.1; JAPO58997; AAC14431.1; JAPO58999; AAC14431.1; JAPO58997; AAC14431.1; 
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                                                                          Similarity
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                MPLATLYFALPLLDLLMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
MFLATLYFALPLIDLILSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
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                                                           Conservative
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LB; Mismatches
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                                                                                                                                                                L -> R (may be involved in congenital central hypoventilation syndrome).
/FTId=VAR_018261.
                                                                                                                                                                                                                                                           Missing (in isoform 2).
/FTId=VSP_001660.
Y -> N (in dbSNP:8192662).
                                                                                                                                                                                                                                                                                                                        N-linked (GlcNAc...)
N-linked (GlcNAc...)
N-linked (GlcNAc...)
                                                                                                                                                                                                               /FTId=VAR_012488.
T -> A (in dbSNP:2072276).
/FTId=VAR_012489.
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                                                                                                                                                                                                                                                                                                                                                                                                                     Potential
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No. 2.2e-166;
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mature form (Potential).
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RESULT 7
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01-NOV-1997
05-JUL-2004
GDNF family
                          This SWISS-PROT entry is copyright. It is produced through a collaboratic between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no wa modified and this statement is not removed. Usage by and for commercia entities requires a license agreement (See http://www.isb-sib.ch/announce.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GFR1_CH:
013156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=97336104; pubMed=9192899; DOI=10.1038/42729; Buj-Bello A., Adu J., Pinon L.G.P., Horton A., Thompson i Rosenthal A., Chinchetru M., Buchman V.L., Davies A.M.; "Neurturin responsiveness requires a GPI-linked receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Name=GFRA1; Synonyms=GDNFRA;
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                            receptor tyrosine kinase.";
Nature 387:721-724(1997).
-i- FUNCTION: Receptor for GDNF. Mediates the
autophosphorylation and activation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9031;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       alpha)
                                                                                                                                                                                                                                               similarity).
SIMILARITY: Belongs to the GDNFR family.
                                                                                                                                                                                                                                                                                                                                                        SUBUNIT: 2 molecules of GDNFR-alpha a with the disulfide-linked GDNF dimer
                                                                                                                                                                                                                                                                                                         SUBCELLULAR LOCATION: Attached
                                                                                                                                                                                                                                                                                                                                                                                                         similarity).
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-1997 (Rel. 35, Last sequence update)
-2004 (Rel. 44, Last annotation update)
amily receptor alpha 1 precursor (GFR-alpha 1)
(GDNFR-alpha) (TGF-beta related neurotrophic
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C Q98TT9;
C Q98TT9;
C Q98TT9;
T Q1-JUN-2001 (TrEMBLrel. 17, Created)
T Q1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
T Q1-JUN-2003 (TrEMBLrel. 24, Last annotation update)
E GDNF family receptor alpha-1a.
E GNR family receptor alpha-1a.
N Name=gfrala; Synonyms=gfralpha1a;
S Brachydanio rerio (Zebrafish) (Danio rerio).
C Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute:
C Eukaryota; Metazoa; Chordata; Teleostei; Ostariophysi; Cy
C Cyprinidae; Danio.
N NCBI TaxID=7955;
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MEDLINE=21.135398; PubMed=11237470; DOI=10.1006/dbio.2000.0145; Shepherd I.T., Beattie C.E., Raible D.W.; "Functional analysis of zebrafish GDNF."; Dev. Biol. 231:420-435(2001).
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N-linked (GlcNAc...) (
GPI-anchor amidated seri
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Pred. No. 4.6e-136;
2; Mismatches 48;
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Best Local Similarity
Matches 298; Conserv
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ZFIN; ZDB-GENE-010226-2; gfraia.
GO; GO:0004872; F:receptor activity; IE
InterPro; IPR003438; GDNF_receptor.
InterPro; IPR003503; GDNF_receptorAl.
Pfam; PF02351; GDNF; 1.
PRINTS; PR01317; GDNFRALPHA1.
PRINTS; PR01316; GDNFRECEPTOR.
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Q98TT8
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Q98TT8
101-TUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-MR-2004 (TrEMBLrel. 26, Last annotation update)
01-MR-2004 (TrEMBLrel. 26, Last annotation update)
GDNP family receptor alpha-1b.
GDNP family receptor alpha-1b.
Name=gfralb; Synonyms=gfralpha-1b;
Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chorrdata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
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  SEQUENCE FROM N.A.
MEDLINE=21135398; PubMed=11237470; DOI=10.1006/dbio.2000.0145;
Shepherd I.T., Beattie C.E., Raible D.W.;
"Functional analysis of zebrafish GDNF.";
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Development 131:241-249(2004).
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Query Match
Best Local Similarity
Matches 289; Conserv
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Q9QWK2;
01-MAY-2000 (TrEMBLrel. 1
01-MAY-2000 (TrEMBLrel. 1
01-JUN-2003 (TrEMBLrel. 2
             Mus musculus (Mouse).
Eukaxyota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI TaxID=10090;
[1]
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EMBL; AY436321; AAK11261.2; -
ZFIN; ZDB-GENE-010226-3; gfraib.
GO; GO:0004872; F-receptor activity;
InterPro; IPR003438; GDNF_receptor.
Pfam; PF02351; GDNF; 1.
                                                                                      GDNF receptor alpha Name=Gfral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dev. Biol. 231:420-435(2001).
[2]
SEQUENCE FROM N.A.
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rel. 13, Last sequence up
rel. 24, Last annotation
(Fragment).
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Pred. No. 2.8e-101;
                                           Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                        --PPKGRDRTSNALDDPTLTNDLDSNADHLYSFCGSLQ
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035977;
01-JAN-1998
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                                                                                                                                      MEDLINE=97323356; PubMed=9177201; DOI=10.1073/pnas.94.12.6238; Sanicola M., Hession C.A., Worley D.S., Carmillo P., Ehrenfels Walus L., Robinson S., Jaworski G., Wei H., Tizard R., Whitty A Pepinsky R.B., Cate R.L., "Glial cell line-derived neurotrophic factor-dependent RET actican be mediated by two different cell-surface accessory protein Proc. Natl. Acad. Sci. U.S.A. 94:6238-6243(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=98271460; PubMed=9608533; DOI=10.1006/mcne.1998.0667; Trupp M., Raynoschek C., Belluardo N., Ibanez C.F.; "Multiple GPI-anchored receptors control GDNF-dependent and independent activation of the c-Ret receptor tyrosine kinase."; Mol. Cell. Neurosci. 11:47-63(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
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Pfam; [
                                                                        EMBL; AF005226; AAB62247.1; -. EMBL; U97143; AAC53301.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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60; GO:0005615; C:extracellular space; TAS. )
60; GO:0019898; C:extrinsic to membrane; TAS. )
60; GO:0004872; F:receptor activity; TAS. )
70; GO:0009653; P:morphogenesis; TAS. )
70; GO:0009653; P:morphogenesis; TAS. )
70; GO:00097399; P:neurogenesis; IMP.
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GO:0004872; F:receptor activity; erPro; IPR003438; GDNF_receptor.
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PF02351; GDNF; 1.
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8 (TrEMBLrel. 05, Last sequence update)
4 (TrEMBLrel. 27, Last annotation update)
line-derived neurotrophic factor receptor-beta
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
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2.2e-79;
les 2;
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Best Local :
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Pfam; PF02351; GDNF; 1.
PRINTS; PR01318; GDNFRALPHA2.
PRINTS; PR01316; GDNFRECEPTOR.
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hes 224;
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                                                                                                                           AYSGLIGTVMTPNYVDS--SSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAF
                                                                                                                                                                   TILPSCSYEDKEKPNCLDLRSLCRTDHLCRSRLADFHANCRASYRTITSCPADNYQACLG
                                                                                                                                                                                                                                               KYRSAYITPCTTSMS-NEVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQ
                                                                                                                                                                                                                                                                                                                                                                                                                      MFLAT---LYFAL--PLIDLLMSAEVSGGD-----RLDCVKASDQCLKEQSCSTKYRTL
                          KSNVSGSTHLCLSDSDFGKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLT
                                                                                GNGSDVTMWQPAPPVQTTTATTTTAFRVKNKPLGP--AGSENEIPTHVLPPCANLQAQKL
                                                                                                             SYAGMIGFDMIPNYVDSNPTGIVVSPWCNCRGSGNMEEECEKFLRDFTENPCLRNAIQAF
                                                                                                                                                                                TIVPVCSYEBRERPNCLSLQDSCKTNYICRSRLADFFINCQPESRSVSNCLKENYADCLL
                                                                                                                                                                                                                       KLRSSYISICNREISPTERCNRKKCHKALRQFFDRVPSEYTYRMLFCSCQDQACAERRRQ
                                                                                                                                                                                                                                                                                LTEGEEFYEASPYEPVTSRLSDIFRLASIFSGTGTDPAVSTKSNHCLDAAKACNLNDNCK
                                                                                                                                                                                                                                                                                                        L-QGNDLLEDSPYEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCK
                                                                                                                                                                                                                                                                                                                                      ROCLAGRORNIMI -----ANKECQAALEVILQESPLYDCRCKRGMKKELQCLQIYWSIHLG
                                                                                                                                                                                                                                                                                                                                                                ROCVAGKETNESLTSGLEAKDECRSAMEALKOKSLYNCRCKRGMKKEKNCLRIYWSMYQS
                                                                                                                                                                                                                                                                                                                                                                                            MILANAFCLFFFLDETLRSLASPSSLQGSELHGWRPQVDCVRANELCAAESNCSSRYRTL
 KANNSKELSMCFTELTTNISPGSKKVIKLNSGSSRARLSAALTALPLLMLT
                                                       GNGTDVNMSPKGPSLPATQAP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         464 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51668 MW; 81168301BE50D6CC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              45.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1120.5; DB 2;
Pred. No. 3.5e-76;
N1; Mismatches 139;
                                                       -RVEKTPSLPDDLSDSTSLGTSVITTCTSIQEQGL
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RESULT 12
GFR2_MOUSE
ID GFR2_MOUSE
                                                                                                                                                                                                                                                                                                                                           01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
GDNF family receptor alpha 2 precursor (GFR-alpha 2)
receptor alpha) (NTNR-alpha) (NTNR-alpha) (TGF-beta
neurotrophic factor receptor 2) (GDNF receptor beta)
Name=Gfra2; Synonyms=Gdnfrb, Trnr2;
                                                                                                                                               MEDLINE=97325791; PubMed=9182803; DOI=10.1016/S0896-6273(00)80318-9; Baloh R.H., Tansey M.G., Golden J.P., Creedon D.J., Heuckeroth R.O., Keck C.L., Zimonjic D.B., Popescu N.C., Johnson E.M. Jr.,
                                                                                                                                                                                                                                                                        Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                             Milbrandt J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            008842;
                                                                Neuron 18:793-802(1997).
                                                                                      through
                                                                                                            "TrnR2,
                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                       NCBI_TaxID=10090;
                      FUNCTION: Receptor i
                                                                                        Ret.";
                                                                                                         a novel receptor that mediates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                 (ISOFORMS 1 AND 2).
  for neurturin. Mediates the NRTN-induc
n and activation of the RET receptor. A
ynaling through the RET tyrosine kinase
and activation naling through t
                                                                                                                                                                                                                                                                           Craniata; Vertebrata; I
Sciurognathi; Muridae;
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                                                                                                         neurturin
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                                                                                                            and
                                              NRTN-induced
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                                                                                                            GDNF
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SUBCELLULAR LOCATION: Attached to

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Best Local :
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LIPID
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CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARSPLIC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AF002701; AAC53548.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alternative splicing; Glycoprotein; GPI-anchor; Lipoprotein; Membrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR003438; GDNF_receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and in the adrenal gland.
SIMILARITY: Belongs to the GDNFR family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IsoId=008842-1; Sequence=Displayed;
Name=2; Synonyms=Short;
IsoId=008842-2; Sequence=VSP_001662;
ISoISESECIFICITY: Neurons of the superior cervical and dorsal root ganglia, and adult brain and testis. Low level in the sple and in the adrenal gland.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           similarity).
ALTERNATIVE PRODUCTS:
Event=Alternative splicing; Named isoforms=2;
Name=1; Synonyms=Long;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGI:1195462; Gfra2.
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 411
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PF02351; GDNF;
                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MFLAT---LYFAL--PLLDLLMSAEVSGGD-----RLDCVKASDQCLKEQSCSTKYRTL
                                                                                                                                                 AYSGLIGTVMTPNYVDS--SSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAF
                                                                                         GNGSDVTWWQPAPPVQTTTATTTTAFRVKNKPLGP--AGSENEIPTHVLPPCANLQAQKL
                                                                                                                             SYAGMIGFDMTPNYVDSNPTGIVVSPWCNCRGSGNMEEECEKFLKDFTENPCLRNAIQAF
                                                                                                                                                                                                                                                                                KYRSAYITPCTTSMS-NEVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQ
KANNSKELSMCFTELTTNISPGSKKVIKLYSGSCRARLSTALTALPLLMVT
                              KSNVSGSTHLCLSDSDFGKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLT 454
                                                                                                                                                                                            TILPSCSYEDKEKPNCLDLRSLCRTDHLCRSRLADFHANCRASYRTITSCPADNYQACLG
                                                                                                                                                                                                                             TIVPVCSYEERERPNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLL
                                                                                                                                                                                                                                                            KLRSSYISICNREISPTERCNRRKCHKALRQFFDRVPSEYTYRMLFCSCQDQACAERRRQ
                                                                                                                                                                                                                                                                                                                             LTEGEEFYEASPYEPVTSRLSDIFRLASIFSGTGADPVVSAKSNHCLDAAKACNLNDNCK
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                                                               TFSATQAPRVEKTPSLPDDLSDSTSLGTSVITTCTSIQEQGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Removed in mature form (Potential).
N-linked (GlcNAc...) (Potential).
N-linked (GlcNAc...) (Potential).
N-linked (GlcNAc...) (Potential).
GP1-anchor amidated serine (Potential).
Missing (in isoform 2).
/FTId=VSP_001662.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4FB495FA58C61F78 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1112.5; DB 1;
No. 1.4e-75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               moved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
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Best Local :
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WONG Y.W., TOO H.P.;

WONG Y.W., TOO H.P.;

WONG Y.W., TOO H.P.;

Submitted (JUL-2001) to the EMBL/GenBai
EMBL; AF398416; AAK97483.1; JOINED.
EMBL; AF398411; AAK97483.1; JOINED.
EMBL; AF398414; AAK97483.1; JOINED.
EMBL; AF398415; AAK97483.1; JOINED.
EMBL; AF398415; AAK97483.1; JOINED.
EMBL; AF398413; AAK97483.1; JOINED.
EMBL; AF398413; AAK97483.1; JOINED.
EMBL; AF398413; AAK97483.1; JOINED.
EMBL; AF398413; AAK97483.1; JOINED.
GO; GO:0004872; F:receptor activity; II
Pfam; PF02351; GDNF; 1.
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01-DEC-2001
01-DEC-2001
01-JUN-2003
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Brain Res. Mol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=22712886; PubMed=12829325; DOI=10.1016/S0169-328X(03)00169-4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=C57BL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Real time PCR quantification of GFRalpha-2 alternatively spliced isoforms in murine brain and peripheral tissues.";
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356
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                                                                                                                                                                                                                                                                                                               50 ROCVAGKETNESLTSGLEAKDECRSAMEALKOKSLYNCRCKRGMKKEKNCLRIYWSMYQS
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                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                          MFLAT---LYFAL--PILDLLMSAEVSGGD-----RLDCVKASDQCLKEQSCSTKYRTL
                                                     GNGTDVNMSPKGP-----TFSATQAPRVEKTPSLPDEISDGTSLGTSVITTCTSIQEQGL
                          GNGSDVTMWQPAPPVQTTTATTTAFRVKNKPLGP--AGSENEIPTHVLPPCANLQAQKL
                                                                                                             TILPSCSYEDKEKPNCLDLRSLCRTDHLCRSRLADFHANCRASYRTITSCPADNYQACLG
                                                                                                                               TIVPVCSYEERERPNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLL
                                                                                                                                                                    KLRSSYISICNREISPTERCNRRKCHKALRQFFDRVPSEYTYRMLFCSCQDQACAERRRQ
                                                                                                                                                                                     KYRSAYITPCTTSMS-NEVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQ
                                                                                                                                                                                                                                                                                      ROCLAGRORNIML-----ANKECQAALEVIQESPLYDCRCKRGMKKELQCLQIYWSIHLG
                                                                                                                                                                                                                               LTEGEEFYEASPYEPVTSRLSDIFRLASIFSGTGADPVVSAKSNHCLDAAKACNLNDNCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                               463 AA;
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Mol. Brain Res. 114:146-153(2003)
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19, Last seque
24, Last annot
neurotrophic
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Last annotation update)
rotrophic factor family
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KANNSKELSMCFTELTTNISPGSKKVIKLYSGSCRARLSTALTALPLLMVT

461 454

KSNVSGSTHLCLSDSDFGKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLT

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RESULT 14

GFR2 HUMAN

GFR3 HUMAN

GFR4 HOTO

GFR4 HUMAN

GFR5 HUMAN

GFR6 HUMAN

GFR6 HUMAN

GFR6 HUMAN

GFR6 HUMAN

GFR7 HUM
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GFR2 HUMAN STANDARD; PRT; 464 AA.

000451; 015316; 015328;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
GDNF family receptor alpha 2 precursor (GFR-alpha 2)
GDNF family receptor alpha) (MTNR-alpha) (TGF-beta receptor alpha) (NTNR-alpha)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Walus L., Robinson S., Jaworski G., Wei H., Tizard R., Whitty A., Pepinsky R.B., Cate R.L.;

"Glial cell line-derived neurotrophic factor-dependent RET activation can be mediated by two different cell-surface accessory proteins.";

Proc. Natl. Acad. Sci. U.S.A. 94:6238-6243(1997).

-!- FUNCTION: Receptor for neuriturin. Mediates the NRTN-induced autophosphorylation and activation of the RET receptor. Also able
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for glial cell line-derived neurotrophic factor receptor beta, homologue to GDNFR-alpha.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=97402208; PubMed=9259272; DOI=10.1093/hmg/6.8.1267; Suvanto P., Wartiovaara K., Lindahl M., Arumae U., Moshnyakov Horelli-Kuitunen N., Airaksinen M.S., Palotie A., Sariola H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. (ISOFORMS 1 AND MEDLINE=97325791; PubMed=9182803; I Baloh R.H., Tansey M.G., Golden J.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=97322356; PubMed=9177201; DOI=10.1073/pnas.94.12.6238; Sanicola M., Hession C.A., Worley D.S., Carmillo P., Ehrenfels Walus L., Robinson S., Jaworski G., Wei H., Tizard R., Whitty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "TrnR2, a novel receptor that through Ret.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              receptor alpha) (NTNR-alpha) (NRTNR-alpha) (TGF-beta neurotrophic factor receptor 2) (GDNF receptor beta)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORM
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                                                                                                                                                                                                               Name=2; Synonyms=Short;
IsoId=000451-2; Sequence=VSP_001661;
TISSUE SPECIFICITY: Isoform 1 is found in SIMILARITY: Belongs to the GDNFR family.
                                                                                                                                                                                                                                                                                                                                Name=1; Synonyms=Long;
IsoId=000451-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                  similarity).
ALTERNATIVE PRODUCTS:
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SUBCELLULAR LOCATION: Attached
                                                                                                                                                                                                                                                                                                                                                                                                  Event=Alternative splicing; Named
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to mediate GDNF signaling
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9182803; DOI=10.1016/S0896-6273(00)80318-9;
Golden J.F., Creedon D.J., Heuckeroth R.O.,
Popescu N.C., Johnson E.M. Jr.,
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RESULT 15
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GO; GO:0019898; C:extrinsic to membrane; TAS.

GO; GO:0015167; F:glial cell line-derived neurotrophic

GO; GO:0007169; P:transmembrane receptor protein tyrosi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AF002700; AAC52036.1;
EMBL; U93703; AAB61922.1; -.
EMBL; U97145; AAC51647.1; -.
Genew; HGNC:4244; GFRA2.
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                                                                                                                     KANNSKELSMCF--TELTTNIIPGSNKVIKPNSGPSRARPSAALTVLSVLML
                                                                                                                                                                                                                                    AYSGLIGTVMTPNYVDSS--SLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAF
                                                                                                                                                                                                                                                                      TILPSCSYEDKEKPNCLDLRGVCRTDHLCRSRLADFHANCRASYQTVTSCPADNYQACLG
                                                                                                                                                                                                                                                                                    TIVPVCSYEERERPNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLL
                                                                                                                                                                                                                                                                                                                      KLRSSYISICNREISPTERCNRRKCHKALRQFFDRVPSEYTYRMLFCSCQDQACAERRRQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MFLATLYFALPLID------LIMSAEVSG-GDRIDCVKASDQCLKEQSCSTKYRTL
                                                                                                                                               KSNVSGSTHLCLSDSDFGKDGLAGASSHITTKS--MAAPPSCSLSSLPVLML 453
                                                                                                                                                                                             GNGSDYTMWQPAPPVQTTTATTTTAFRYKNKPLGP--AGSENEIPTHYLPPCANLQAQKL
                                                                                                                                                                                                                      SYAGMIGFDMTPNYVDSSPTGIVVSPWCSCRGSGNMBEECEKFLRDFTENPCLRNAIQAF
                                                                                                                                                                                                                                                                                                                                              KYRSAYITPCTTSMS-NEVCNRRKCHKALROFFDKVPAKHSYGMLFCSCRDIACTERRRO
                                                                                                                                                                                                                                                                                                                                                                       LTEGEEFYEASPYEPVTSRLSDIFRLASIFSGTGADPVVSAKSNHCLDAAKACNLNDNCK
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                                                                                                                                                                      GNGTDVNVSPKGPSFQATQAP----
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445
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357
413
144
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-- 51558 MW;
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444
464
52
357
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444
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Missing (in isoform 2 /FTId=VSP_001661.
V -> A (in Ref. 2).
Q -> L (in Ref. 3).
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Pred. No. 2.4e-75;
6; Mismatches 139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-linked (GlcNAc. . .) (rev
GPI-anchor amidated serine
GPI-anchor isoform 2).
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N-linked
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GDNF family receptor al
Removed in mature form
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(GleNAc...)
(GleNAc...)
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Q792X9
Q792X9;

Last sequence up

sequence update)

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Receptor.
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Cloning, mRNA distribution and chromosomal localisation of the gene for glial cell line-derived neurotrophic factor receptor beta, a homologue to GDNFR-alpha.";

Hum. Mol. Genet. 6:1267-1273(1997).

EMBL; AF003825; AAD09310.1; -.

GO; GO:0004872; F:receptor activity; IEA.

InterPro; IFR003438; GDNF_receptor.

InterPro; IFR003504; GDNF_receptorA2.

Pfam; PF02351; GDNF; 1

PRINTS; PR01318; GDNFRALPHA2.

PRINTS; PR01318; GDNFRRCEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Hippocampus;
MEDLINE=97402208; PubMed=9259272; DOI=10.1093/hmg/6.8.1267;
Suvanto P., Wartiovaara K., Lindahl M., Arumae U., Moshnyakov M.,
Horelli-Kuitunen N., Airaksinen M.S., Palotie A., Sariola H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Saarma M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa, Chordata; Craniata; Vertebrata, Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                             411
                           404
                                                     356 GNGTDVNMSPKGPSLPATQAP----RVEKTPSLPDDLSDSTSLGTSVITTCTSIQEQGL
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                                                                                                                                                                                                                                                                                                            110 L-QGNDLLEDSPYEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCK 168
                                                                                                                                                                                                                                                                                             116 LTEGEEFYEASPYEPVTSRLSDIFRLASIFSGTGTDPAVSTKSNHCLDAAKACNLNDNCK 175
                                                                                                                                                                                                                                                                                                                                                         13
                                                                                                                                                                                                                                                                                                                                                                        50 RQCVAGKETNFSLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQS 109
                                                                                                                                                                                                                                                                                                                                                                                                             TIVPVCSYEERERPNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLL 287
                                                                                                                                                                                                                                                                                                                                                      ROCLAGRIDATML----ANKECQAALEVIQESPLYDCRCKRGMKKELQCLQIYWSIHIG 115
                          KSNVSGSTHLCLSD 417
                                                                                   GNGSDVTMWQPAPPVQTTTATTTTAFRVKNKPLGP--AGSENEIPTHVLPPCANLQAQKL 403
                                                                                                                                                                                                                               KANNSKELSMCFTE 424
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Search completed: February 17, 2005, 09:43:55 Job time : 186 secs

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Database
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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seq length: 2000000000
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Gapop 10.0 ,
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1: geneseqp1980s:*
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2488
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                                                                                                                                                                                                                                                                                                                                            2105692 seqs, 386760381 residues
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
geneseqp2002s:*
geneseqp2003as:*
geneseqp2003bs:*
geneseqp2004s:*
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geneseqp2000s:*
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2262:548 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Regult No.	Score	Query Match	Length	BB	ID	Description
1	2488	100.0	468	N	AAW35334	334 Rat
N	2488	8	468	ស	2732	7
w	2488	0	468	N	AAW37457	Rat
4	2488	8	468	N	AAW84164	Glia
v	2488	٠	468	7	ADD11672	Rat
6	2488	•	468	7	ADE60800	Rat
7	2488	100.0	468	7	ADD46323	-
8	2488	•	468	œ	ADJ58694	
9	2472	•	468	N	AAW92298	
10	2316.5	•	465	N	AAW35333	Aaw35333 Human
11	2316.5	•	465	N	AAW84163	Aaw84163 Glial
12	2316.5	•	465	'n	ABJ05547	
13	2316.5	93.1	465	7	ADD11673	Add11673 Human
14	2316.5	•	465	7	ADD46325	
15	2316.5	•	465	7	ADE60802	Ade60802 Human
16	2316.5	•	465	7	ADN38766	
17	2311.5	•	463	N	AAW84167	
18	2309.5	92.8	465	N	AAW84165	
19	2306.5	•	463	N	AAW84166	Aaw84166 GDNFR
20	2306.5	•	465	N	AAW92300	Aaw92300 Human
21	2278	•	460	2	AAW37459	
22	2278	•	460	ω	AAY15175	
23	2278	•	460	o	ABP97180	Abp97180 Tumour-
24	2278	91.6	460	8	ADJ58703	Adj58703 Human
25	1686	ב ב	,	•	, ,	Daw 3 JARR Cimen

The present sequence is the rat glial cell line-derived neurotrophic factor (GDNF) receptor, which can be used to treat dopaminergic nerve cell disorders, e.g. Parkinson's and Alzheimer's disease or amyotrophic lateral sclerosis, complications of diabetes and Huntington's disease and (optionally in combination with GDNF) glaucoma, retinal degeneration and hearing loss caused by injury to inner ear sensory neurons. The receptor can also be used to block unwanted GDNF activity, analyse GDNF related

Glial cell line derived neurotrophic factor receptor - useful to treat dopaminergic nerve cell disorders, e.g. Parkinson's and Alzheimer's

N-PSDB; AAT95297. WPI; 1997-535836/49. Fox GM,

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(AMGE-) AMGEN INC. Wen D,

Claim 1; Page 96-98; 196pp; English.

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26
1117.5	1117.5	1117.5	1117.5	1117.5	1117.5	1118.5	1120.5	1120.5	1120.5	1120.5	1120.5	1120.5	1120.5	1120.5	1120.5	1176.5	1220	1431.5	1686
44.9	44.9	44.9	44.9	44.9	44.9	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	47.3	49.0	57.5	67.8
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AAU79265	ABB09629	ABB79035	AAY80121	AAY15176	AAW71601	AAW84181	ADE63251	ADE54591	ADD11657	AAU79266	ABB09630	ABB79036	AAY80122	AAW92299	AAW71602	AAW84183	AAW84168	AAW84169	ADJ58701
Aau79265	Abb09629	Abb79035	Aay80121	Aay15176	Aaw71601	Aaw84181	Ade63251	Ade54591	Add11657	Aau79266	Abb09630	Abb79036	Aay80122	Aaw92299	Aaw71602	Aaw84183	Aaw84168	Aaw84169	Adj58701
Human	Amino	Human r	Human neu	Human GFR	Human neu	A GDNFR-a	Rat Prote	Rat Prote	Rat Neurt	Rat neurt	Amino aci	Rat neurt	Rat neurt	Rat GDNFR	Rat neurt	Consensus	GDNFR-alp	GDNFR-alp	Human ret
neı	ac	neu	2																

ALIGNMENTS

RESULT 1 AAW35334 ID AAW3 XX GAT XX GAT PF 15-1 XX WO9: XX AW3 XX AW4 PF 15-1 XX AW4 XX AW5 PF 15-1 XX AW5 XX AW5 PF 15-1 XX AW5 XX C1AM6 22-APR-1996; 09-MAY-1996; 14-APR-1997; Rat; glial cell line-derived neurotrophic factor; GDNF; receptor; treatment; dopaminergic nerve cell disorder; Parkinson's disease; Alzheimer's disease; amyotrophic lateral sclerosis; diabetes; Huntington's disease; glaucoma; retinal degeneration; hearing loss gene therapy. Rat glial cell line-derived neurotrophic factor receptor. 01-MAY-1998 AAW35334; AAW35334 standard; 15-APR-1997; 30-OCT-1997 WO9740152-A1 Rattus sp. (first entry) 96US-0015907P. 96US-0017221P. 97US-00837199. 97WO-US006281. protein; 468 8 hearing loss;

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RESULT 2
AAW27327
ID AAW2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 468
                                                                                                       Glial cell derived neurotrophic factor receptor alpha; GDNFR alpha; GDNF, rat; kidney disease; glomerulonephritis; therapy.
                                                                           Rattus sp
                                                                                                                                                                Rat glial cell derived neurotrophic factor receptor alpha.
                                                                                                                                                                                                     27-APR-1998
                                                                                                                                                                                                                                      AAW27327;
                                                                                                                                                                                                                                                                       AAW27327 standard; protein; 468
                       Peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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1. .24
//label= Sig_peptide
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Pred. No. 4.4e-199;
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                                                                                                                                                                                                                                                                                                               This protein comprises full-length rat glial cell derived neurotrophic CC factor receptor alpha (GDNFR alpha), a novel GPI-linked protein that is a CC ligand-binding component of the receptor system for GDNF. Its amino acid CC ligand-binding component of the receptor system for GDNF. Its amino acid CC circular relates to novel uses of GDNF and its receptor. In particular, CC it relates to native rat GDNFR alpha (see AAM27327), its variants and CC soluble derivatives (extracellular domain), chimeric GDNFR alpha and CC antibodies which bind to the GDNFR alpha, including agonist and CC neutralising antibodies, as well as various uses for these molecules. It also relates to assay systems for detecting ligands to GDNFR alpha, cellates to assay systems for detecting ligands to GDNFR alpha, cellates to assay systems for detecting ligands to GDNFR alpha, cellates for identifying the physiological role of GDNF, diagnostic CC techniques for identifying molecules to GDNFR alpha, and therapeutic cellated collates (claimed) for the treatment of GDNFR alpha, and therapeutic cellated collates (claimed) for the treatment of GDNFR alpha, with
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Isolated glial cell derived neurotrophic factor receptor alpha - to develop products to diagnose and treat associated disorders, particularly enteric nervous system or kidney disorders.
                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                          related conditions, particularly kidney disease associated with glomerulonephritis and enteric nervous system related disorders Transgenic and knockout animals are also claimed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 78-79; 100pp; English.
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14-MAR-1996;
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                                                                                                                                   SLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYMSMYQSLQGNDLLEDSP
                                                                                                                                                                                                   MFLATLYFALPLLDLLMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
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96US-00618236.
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07-JUN-1996;
16-JUL-1996;
11-APR-1997;
This protein comprises rat Ret ligand (RetL) RetL1, a key component of the Ret signalling pathway that specifically interacts with Ret receptor protein, triggering Ret dimerisation and/or autophosphorylation of the Ret tyrosine kinase domain. The amino acid sequence was deduced from a cDNA clone (see AAV00245) obtained from a rat embryonic kidney cDNA expression library. Human RetL1 as well as mouse and human RetL2 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ret ligand; RetL; RetLl; receptor; signal transduction; rat; cell growth; renal cell; nerve cell; renal failure; nephritis; kidney transplant; toxic injury; hypoxic injury; neurodection; motor content or neurone disease; multiple sclerosis; infection; meningitis; myelopathy; Creutzfeldt-Jakob disease; cranial nerve injury; spinal cord injury; Down's syndrome; cerebral palsy; Lyme disease; muscular dystrophy;
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                                                                                                                        Claim
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tors, transformed cells and antibodies, used for promoting cell growth
improving survival of injured cells, especially renal or nerve cells.
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96US-0019300P.
96US-0021859P.
97US-0043533P.
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Matches 468;
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Pred. No. 4.4e-199;
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AAW84164 standard;
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AAW84164; (first

Glial cell-line derived neurotrophic factor receptor-alpha protein

RESULT 4
AAW8416
ID AAW8
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AC AAW8
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DT 25-N
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DT 61ia
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CW Glia
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CW GRAL;
XW Rat; glial cell-line derived neurotrophic factor receptor-alpha; GDNFR-alpha; glial cell line-derived neurotrophic factor; GDNF; neurturin; signal transduction; dopaminergic nerve cell; Parkinson's disease; Alzheimer's disease; amyotrophic lateral sclerosis; neurological disorder; diabetes; glaucoma; sensory neuron; retinal ganglion cell degeneration; sensory neuropathy; retinopathy;

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                                                                                                                                                                                                                                                                                                                                   The present sequence represents a rat glial cell-line derived CC neurotrophic factor receptor-alpha (GDNFR-alpha). The protein is capable CC of complexing with glial cell line-derived neurotrophic factor (GDNF) and CC mediating cell response to GDNF. Alpha proteins are functionally CC endiating cell response to GDNFR-alpha proteins are functionally. CC and to act as part of a molecular complex which mediates or enhances the CC signal transduction affects of GDNF and/or neurturin. The proteins can be CC used for treating improperly functioning dopaminergic nerve cells, CC Parkinson's disease, Alzheimer's disease or amyotrophic lateral CC sclerosis. They can also be used for treating neurological disorders CC involving retinal ganglion cell degeneration, sensory neuropathy caused CC pathological conditions, or degeneration of, sensory neurops, CC pathological conditions, or disease or injury-related retinopathies. The products can also be used for detection, diagnosis, drug screening and
                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New isolated glial cell line-derived neurotrophic factor receptors - used to develop products for treating e.g. improperly functioning dopaminergic nerve cells, Parkinson's disease, Alzheimer's disease or amyotrophic
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               SNSNEVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQTIVFVCSYBERER
                                                                                                                                        SLTSGLEAKDECRSAMEALKOKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSP
                                                                                                                                                                          MFLATLYFALPLLDLLMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF
                                                         YEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCKKYRSAYITPCTT
                                                                          YEPVNSRLSDI FRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCKKYRSAYITPCTT
                                                                                                                  SLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSP
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Pred. No. 4.4e-199;
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                                                                                                                                                                                                                                                                 Length 468;
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09-JUN-1997;
24-OCT-1997;
17-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                         Rat; Neurturin receptor alpha; NTNRalpha; receptor; antiparkinsonian; nootropic; neuroprotective; antidiabetic; cytokine; neurotrophic factor; gene therapy; amyotrophic lateral sclerosis; diabetes; Parkinson's disease; Alzheimer's disease; glial cell line derived factor receptor alpha; GDNFRalpha.
                                                                                New human neurturin receptor-alpha polypeptide useful for identifying compound that binds to or activates it, potentially useful as a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADD11672
                                                                                                                                               Klein
                                                                                                                                                                   (KLEI/)
(ROSE/)
(HYNE/)
                                                                                                                                                                                                               01-SEP-1999;
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                                                                                                                                                                                                                                                                                                                                                                        Peptide
                                                                                                                          2003-810859/76
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                                                                                                                                                                  KLEIN R D.
ROSENTHAL A
HYNES M A.
                                                                                                                  ADD11671.
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97US-0063258P.
98US-00024665.
99US-00388316.
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                                                                                                                                                                                                                                                                                                                                          /note= "Mature GDNFRalpha"
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The invention relates to a polypeptide comprising a sequence that is a human neurturin receptor (NTNR) alpha extracellular domain or an allelic variant or mammalian homologue of NTNRalpha. Also include are an antibody that specifically binds to NTNRalpha, an isolated nucleic acid encoding

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RESULT 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 468; Conser
Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
                                                                                        Rat Protein Q62997, SEQ ID NO 6712.
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Best Local S
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01-NOV-2001; 2001US-0346382P
26-NOV-2001; 2001US-0333347P
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ftp.wipo.int/pub/published_pct_sequences.
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                                                       SLTSGLEAKDECRSAMEALKOKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSP
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           The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                          New composition comprising two or more isolated polypeptides, useful preparing a medicament for treating pain in an animal.
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chronic co
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                                                                                                                                                                                                                                              Claim 1; Page; 1017pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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RESULT 8
ADJ58694
ID ADJ58694;
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ADJ58694;
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AC ADJ58694;
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DT 06-MAY-2004 (first entry)
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DE Rat retL1 protein.
XX

DE Rat retL1 protein.
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DE Rat retL1 protein; organ failure; foetal malformation;
XX

XX

DS Rattus gp.
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PN US6677135-B1.
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PD 13-JAN-2004.
PN 06-NOV-1998; 98US-00187906.
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to nucleotide and amino acid sequences which promote tissue growth and methods for modulating tissue growth. The invention also relates to retl proteins and polynucleotides encoding such proteins. Retl proteins interact with a receptor protein Ret to trigger dimerisation and/or autophosphorylation of the tyrosine kinase domain of the receptor protein Ret. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of diseases or conditions associated with aberrant expression or activity of the Ret ligand, such as organ failure, foetal malformations and tumour growth and for promoting regeneration or survival of damaged renal tissue. The present sequence is rat retll protein of the invention.
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07-JUN-1996;
16-JUL-1996;
13-AUG-1996;
11-APR-1997;
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                    GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS 468
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 2488; DB 8; 100.0%; Pred. No. 4.4e-199; tive 0; Mismatches 0;
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Matches 466;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 468 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Newly isolated and characterised GDNFR - used to biological action and the signalling events that responsive cells.
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Pred. No. 9.6e-198;
0; Mismatches 2;
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14-APR-1997;
                                                                                                              The present sequence is the human glial cell line-derived neurotrophic factor (GDNF) receptor, which can be used to treat dopaminergic nerve cell disorders, e.g. Parkinson's and Alzheimer's disease or amyotrophic lateral sclerosis, complications of diabetes and Huntington's disease and (optionally in combination with GDNF) glaucoma, retinal degeneration and hearing loss caused by injury to inner ear sensory neurons. The receptor can also be used to block unwanted GDNF activity, analyse GDNF related molecules and stabilise GDNF in pharmaceutical formulations. Receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Glial cell line derived dopaminergic nerve cell
expressing cells, preferably transfected ex vivo, can be used similarly by implantation, and the use of the receptor CDNA in gene therapy is also contemplated. Probes based on the cDNA can be used to identify GDNF responsive cells and tissues, e.g. to identify patients who would benefit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; glial cell line-derived neurotrophic factor; GDNF; recepto treatment; dopaminergic nerve cell disorder; Parkinson's disease; Alzheimer's disease; amyotrophic lateral sclerosis; diabetes;
                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 91-93; 196pp;
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Best Local Similarity
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                                                                                                                                                                                                              Glial
                                                                                                       neurturin; signal transduction; dopaminergic nerve cell;
Parkinson's disease; Alzheimer's disease; ampotrophic lateral sclerosis;
neurological disorder; disbetes; glaucoma; sensory neuron;
retinal ganglion cell degeneration; sensory neuropathy; retinopathy;
                                                                                                                                                                 Human; glial cell-line derived neurotrophic factor receptor-alpha; GDNFR-alpha; glial cell line-derived neurotrophic factor; GDNF;
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lB; Mismatches 13;
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Key Peptide

Location/Qualifiers

/note=

"putative signal peptide"

Homo sapiens.

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The present sequence represents a human glial cell-line derived CC neurotrophic factor receptor-alpha (GDNFR-alpha). The protein is capable CC of complexing with glial cell line-derived neurotrophic factor (GDNF) and CC mediating cell response to GDNF. GDNFR-alpha proteins are functionally CC characterised by the ability to bind GDNF and/or neurturin specifically. CC and to act as part of a molecular complex which mediates or enhances the cC signal transduction affects of GDNF and/or neurturin. The proteins can be CC used for treating improperly functioning dopaminergic nerve cells, CC Parkinson's disease, Alzheimer's disease or amyotrophic lateral CC sclerosis. They can also be used for treating neurological disorders associated with diabetes, glaucoma or other diseases and conditions CC involving retinal ganglion cell degeneration, sensory neurons, conditions, or disease or injury-related retinopathies. The products can also be used for detection, diagnosis, drug screening and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
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                                                                                 PNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLLAYSGLIGTVMTPN
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ilarity 92.7%;
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02-FEB-2001; 2001US-0265928P.
09-APR-2001; 2001US-00629472.
09-APR-2001; 2001US-0282698P.
04-MAY-2001; 2001US-0288590P.
29-MAY-2001; 2001US-0294443P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Detecting a breast cancer-associated transcript in a patient's cell, useful for diagnosing breast cancer, comprises contacting a biological sample with a polynucleotide that selectively hybridizes with breast cancer nucleic acids.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 357; 414pp; English.
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The invention comprises a method of detecting a breast cancer-associated CC transcript in a cell from a patient. The method of the invention involves CC contacting a biological sample from the patient with a nucleotide that CC hybridises to one of the 69 breast cancer-associated gene sequences shown CC in the specification. The method of the invention is useful in the CC diagnosis or prognosis of breast cancer, and for detecting genes that are CC up or down-regulated in breast cancer cells. Genes identified by the CC method of the invention can be used in diagnostic purposes and also as CC targets for screening for therapeutic compounds that modulate breast CC cancer (e.g. hormones or antibodies). Identification of genes that are CC over or under expressed in breast cancer can additionally provide high-cc resolution, high-sensitivity datasets which can be used in the areas of CC diagnostics, therapeutics, drug development, pharmacogenetics, protein CC ABJ05604 represent the proteins encoded by the 69 breast cancer-

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Sequence 465

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Best Local
                                                                                                                           18-FEB-1997;
09-JUN-1997;
24-OCT-1997;
17-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                 Human; Neurturin receptor alpha; NTNRalpha; receptor; antiparkinsonian; nootropic; neuroprotective; antidiabetic; cytokine; neurotrophic factor gene therapy; amyotrophic lateral sclerosis; diabetes; Parkinson's disease; Alzheimer's disease;
                                              (KLEI') KLEIN R D. (ROSE') ROSENTHAL A. (HYNE') HYNES M A.
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                  Klein RD,
                                                                                                              01-SEP-1999;
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ilarity 92.7%;
Conservative 1
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97US-0049818P.
97US-0063258P.
98US-00024665.
99US-00388316.
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Pred. No. 9.6e
LB; Mismatches
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WPI; 2003-810859/76

New human neurturin receptor-alpha polypeptide useful for identifying compound that binds to or activates it, potentially useful as a

ö 22; 83pp; English

The invention relates to a polypeptide comprising a sequence that is a CC human neurturin receptor (NTWR) alpha extracellular domain or an allelic CC variant or mammalian homologue of NTWRalpha. Also include are an antibody that specifically binds to NTWRalpha, an isolated nucleic acid encoding CC NTWRalpha, an expression vector comprising the nucleic acid, a host cell CC comprising the vector and a non-human transgenic animal which contains CC cells that expression vector comprising the nucleic acid to produce NTWRalpha (or which CC may comprise mature NTWRalpha conjugated with, or fused to, a molecule which increases its serum half-life (e.g. 1gG Fc or an 1gG salvage CC variety of the contains to the contains to the contains to the contains to or activates it, to purify a molecule which binds to or activates it, to purify a molecule which binds to or activates it, to purify a molecule which binds to or activating Ret on the surface of a cell to neurturin. Soluble CC used for activating Ret on the surface of a cell. An antibody that binds CC used for activating NTWRalpha in a cell. An antibody to NTWRalpha is used in a composition that further comprises a cytokine CC presence of NTWRalpha in a test sample. An agonist antibody to NTWRalpha is used to produce NTWRalpha by culturing a host cell and cC uncleic acid that inhibits expression of NTWRalpha can be used in gene CC nucleic acid that inhibits expression of NTWRalpha can be used in gene CC elaba (GONFRAlpha). A nucleic acid that expression of NTWRalpha can be used in gene CC slaba (GONFRAlpha). A partine of NTWRalpha can be treated are amyotrophic lateral CC calpha (GONFRAlpha). A partine of NTWRalpha can be used in gene CC calpha (GONFRAlpha). A partine of NTWRalpha can be used in gene CC calpha (GONFRAlpha). A partine of NTWRalpha can be capted are amyotrophic lateral CC calpha (GONFRALPha).

Similarity SMSNEVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQTIVPVCSYEERER YEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCKKYRSAYITFCTT SLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYMSMYQSLQGNDLLEDSP MFLATLYFALPILDILMSAEVSGGDRIDCVKASDQCIKEQSCSTKYRTIRQCVAGKETNF GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS 468 YVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV SLASGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSP MFLATLYFALPILDLILSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF YIDSSSLSVAPWCDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFGNGSDVTVWQPAFPV SVSNDVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQTIVPVCSYEEREK YEPVNSRLSDIFRVVPFISDVFQQVEHIPKGNNCLDAAKACNLDDICKKYRSAYITPCTT 93.1%; Score 2316.5; DB 7; ilarity 92.7%; Pred. No. 9.6e-185; Conservative 18; Mismatches 13; 7; Indels Length ω -420 240 180 120 120 8 420 300 240 180

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RESULT 14
ADD46325
  Comprising the vector, a method for identifying a nucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a cc kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying an agent ct he expressed in an animal subjected to pain, a method for identifying a compound which regulates ct he expressed in an animal subjected to pain, a method for identifying a compound which regulates the compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a cc method for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polypoptides given in the greatification, a method for identifying a compound useful in treating capital and a pharmaceutical composition composition composition of polypoptides or their antibodies. The polypucleotide or the compound that conjury (CCI) and spared nerve injury (Chung), chronic constriction conjury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene conjury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene conjury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene conjury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene conjury (CCI) and spared nerve injury (CCI) an animal conjured the conjury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene conjury (CCI) and spared nerve injury (CCI) and spared nerve in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention discloses a composition comprising two or more isolated or human polynucleotides or a polynucleotide which represents a fragme derivative or allelic variation of the nucleic acid sequence. Also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
Sequence
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic cons spared nerve injury; SNI; Chung.
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NK; P56159.
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Query Match
Best Local Similarity 92.
Matches 434; Conservative

93.1%;

Score 2316.5; DB 7; Pred. No. 9.6e-185; 18; Mismatches 13;

Indels Length 465;

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Gaps

2

Claim 1; Page; 1017pp; English

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RESULT 15
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spinal
spared
                                                                         New composition comprising preparing a medicament for
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-AUG-2002; 2002WO-US025765.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human Protein P56159, SEQ ID NO 6714.
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                                                                                                                                                     WPI; 2003-268312/26.
GENBANK; P56159.
                                                                                                                                                                                                                               Woolf C,
                                                                                                                                                                                                                                                                              (GEHO )
(FARB )
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                                                                                                                                                                                                                                                                              GEN HOSPITAL CORP.
BAYER AG.
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                                                                      two or more isolated polypeptides, useful for treating pain in an animal.
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Collined are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a colling that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying an agent compound which regulates the expressed in an enimal subjected to pain, a method for identifying a compound which regulates the expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a compound for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polypeptides given in the cativity in an animal of one or more of the polypeptides given in the cativity in an animal of one or more of the polypeptides given in the cativity in an animal of one or more of the polypeptides given in the cativity in an animal of one or more of the polypeptides given in the cativity in an animal of one or more of the polypeptides given in the cativity is useful for preparing a medicament for treating conjury (CCI) and spared nerve injury (Chung), chronic constriction confiction in the sequence presented is a human protein (shown in Table 2 of the sequence data for this patent did not form part of the printed consecution) which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed consecution in the patent of the printed consecution is patent of the printed consecution. Query Match
Best Local Similarity
Matches 434; Conserv The invention distributes a composition of the nucleic acid sequence. Also derivative or allelic variation of the nucleic acid sequence. Also derivative or allelic variation of the nucleic acid sequence. Also derivative or allelic variation of the nucleic acid sequence. Also derivative or allelic variation of the nucleic acid sequence. Sequence 465 AA; The invention discloses a composition comprising two or more isolated rat ftp.wipo.int/pub/published_pct_sequences. 421 421 361 361 301 301 241 241 181 181 SMSNEVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQTIVPVCSYEERER 240 121 121 YEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCKKYRSAYITPCTT 180 61 61 1 MFLATLYFALPLLDLLMSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF EKEĞL-GASSHITTKSMAAPPSCGLSPLLVLVVTALSTLL--SLTETS GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALLAALLSVSLAETS 468 QTTTATTTTALRVKNKPLGPAGSENEIPTHYLPPCANLQAQKLKSNVSGNTHLCISNGNY QTTTATTTTAFRVXNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF YVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV 360 PNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLLAYSGLIGTVMTPN 300 SLASGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSP 120 SLTSGLEAKDECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSP 120 MFLATLYFALPLIDLLISAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNF YIDSSSLSVAPWCDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFGNGSDVTVWQPAFPV PNCLNLQDSCKTNYICRSRLADFFTNCQPESRSVSSCLKENYADCLLAYSGLIGTVMTPN SVSNDVCNRRKCHKALRQFFDKVPAKHSYGMLFCSCRDIACTERRRQTIVPVCSYEEREK 240 YEPVNSRLSDIFRVVPFISDVFQQVEHIPKGNNCLDAAKACNLDDICKKYRSAYITPCTT Conservative 93.1%; Score 2316.5; DB 7; Length 465; 92.7%; Pred. No. 9.6e-185; 18; Mismatches 13; Indels represents a fragment, 1 sequence. Also 3; Gaps 420 300 360 180 60 60 420 2

Search completed: February 17, 2005, 09:46:12 Job time : 85 secs

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/ cgn2 6/ptodata/1/pubpaa/VSO6_NEW_PUB.pep:*
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ALIGNMENTS

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US-10-03-350-2
(Sequence 2, Application US/10033350)
Fublication No. US20030022284A1
(GENERAL INFORMATION:
Resentech, Inc.
Klein, Robert D.
MOOTE, MARK W.
ROSENTHAL, Arnon
RYAN, Anne M.
TITLE OF INVENTION: USES OF GDNF AND GDNF RECEPTOR
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSE: Geneatech, Inc.
STREET: 1 DNA Way
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: HAM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WINFALIN DATA:
APPLICATION NUMBER: US/10/033,350
FILING DATE: CUNKNOWN-
APPLICATION NUMBER: US/08/860,370
FILING DATE: CUNKNOWN-
APPLICATION NUMBER: PCT/US97/04363
FILING DATE: 11-MAR-1997
APPLICATION NUMBER: 08/615902
FILING DATE: 11-MAR-1996
APPLICATION NUMBER: 08/615902
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; SEQUENCE DESCRIPTION: SEQ ID NO: US-10-033-350-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 2488; DB 14; Best Local Similarity 100.0%; Pred. No. 7.8e-210; Matches 468; Conservative 0; Mismatches 0;
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REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P0996P1PCT
TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
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                     QTTTATTTTAFRVKNKPLGPAGSENBIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF 420
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LOCATION:
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LOCATION:
QTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF
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IDENTIFICATION METHOD: OTHER INFORMATION:
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US-10-357-822-21
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APPLICANT: HYNES, MARY A.
APPLICANT: HYNES, MARY A.
TITLE OF INVENTION: NEURTURIN RECEPTOR
FILE REFERENCE: GENENT. 45A2DV1
CURRENT APPLICATION NUMBER: US/10/357,822
CURRENT FILLNG DATE: 2003-02-03
PRIOR APPLICATION NUMBER: US/09/388,316C
PRIOR APPLICATION NUMBER: US/09/388,316C
PRIOR FILING DATE: 1999-09-01
PRIOR FILING DATE: 1998-02-17
PRIOR APPLICATION NUMBER: 60/024,665
PRIOR FILING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/049,818
PRIOR APPLICATION NUMBER: 60/049,818
PRIOR FILING DATE: 1997-02-18
PRIOR APPLICATION NUMBER: 60/038,839
PRIOR FILING DATE: 1997-02-18
PRIOR FILING DATE: 1997-02-18
PRIOR APPLICATION NUMBER: 60/038,839
PRIOR FILING DATE: 1997-02-18
PRIOR FILING DATE: 1997-02-18
PRIOR FILING DATE: 1997-02-18
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Publication No. US20030110525A1
GENERAL INFORMATION:
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Best Local Similarity
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ilarity 100.0%;
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Pred. No. 7.8e-210;
Mismatches 0;
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Sequence 4, Application US/10155693

Publication No. US20030175876A1

GENERAL INFORMATION:
APPLICANT: FOX, GARY M.
APPLICANT: USON, GHOIAN
APPLICANT: WEN, DUANZHI
TITLE OF INVENTION: GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR RECEPTOR
FILE REFERENCE: A-401C
CURRENT APPLICATION NUMBER: US/10/155,693
CURRENT APPLICATION NUMBER: US/08/837,199
PRIOR FILLING DATE: 1997-04-14
PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR FILLING DATE: 1996-04-22
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR FILLING DATE: 1996-04-2
PRIOR FILLING DATE: 1996-05-09
NUMBER OF SEQ ID NOS: 47
SOFTWARE: Patentin version 3.1
           Sequence 1, Application US/10673007
Publication No. US20040126819A1
GENERAL INFORMATION:
APPLICANT: Ibanez, Carlos F.
APPLICANT: Arumae, Urmas
APPLICANT: Sariola, Hannu
APPLICANT: Suvanto, petro
APPLICANT: Trupp, Miles
APPLICANT: Trupp, Miles
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US-10-155-693-4
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                             QTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF
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Saarma, Mart
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PRIOR FILING DATE: 1997-05-22
PRIOR PELICATION NUMBER: 08/747,842
PRIOR FILING DATE: 1996-11-13
PRIOR APPLICATION NUMBER: 60/006,619
PRIOR TILING DATE: 1996-11-13
PRIOR PELICATION NUMBER: 60/015,767
PRIOR PELICATION NUMBER: 60/015,767
PRIOR PELICATION NUMBER: 60/021,965
PRIOR PELICATION NUMBER: 60/021,965
PRIOR PELICATION NUMBER: 60/020,638
PRIOR PELICATION NUMBER: 60/020,638
PRIOR APPLICATION NUMBER: 60/020,639
PRIOR PILING DATE: 1996-06-27
PRIOR PELICATION NUMBER: 60/020,639
PRIOR PILING DATE: 1996-06-27
PRIOR PILING DATE: 1996-06-27
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SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 1
LENGTH: 468
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Best Local Similarity
Matches 468; Conserv
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CURRENT FILING DATE: 2003-09-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Glial Cell Line-Derived Neurotropic Factor Receptors
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                      GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS 468
                                                                            QTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF
                                                                                                                                                                            YVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV
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GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS
                                                                                                                 QTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF
                                                                                                                                                          YVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV
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; Sequence 22, Application US/10357822
; Publication No. US20030110525A1
; GENERAL INFORMATION:
APPLICANT: KLEIN, ROBERT D.
; APPLICANT: ROSENTHAL, ARNON
; APPLICANT: HYNES, MARY A.
; TITLE OF INVENTION: NEURTURIN RECEPTOR
; FILE REFERENCE: GENENT.45A2DV1

US-10-357-822-22

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Sequence 2, Application US/1015693

Publication No. US20030175876A1

GENERAL INFORMATION:
APPLICANT: FOX, GARY M.
APPLICANT: WEN, DUANZHI
ITITLE OF INVENTION: GLIAL CELL LINE-DERIVED NEU
FILE REFERENCE: A-401C
CURRENT APPLICATION NUMBER: US/10/155,693
CURRENT FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: US/08/837,199
PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR APPLICATION NUMBER: US 60/015,907
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US-10-155-693-2
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; ORGANISM: Homo sapiens
US-10-357-822-22
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CURRENT FILING DATE: 2003-02-03
PRIOR APPLICATION NUMBER: US/99/388,316C
PRIOR FILING DATE: 1999-09-01
PRIOR APPLICATION NUMBER: 09/024,665
PRIOR FILING DATE: 1998-02-17
PRIOR APPLICATION NUMBER: 60/063,258
PRIOR FILING DATE: 1997-10-24
PRIOR FILING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/049,818
PRIOR FILING DATE: 1997-06-09
PRIOR APPLICATION NUMBER: 60/038,839
PRIOR FILING DATE: 1997-02-18
PRIOR FILING DATE: 1997-02-18
PRIOR FILING DATE: 1997-02-18
PRIOR FILING DATE: 1997-02-18
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Best Local Similarity 92.7%;
Matches 434; Conservative 1
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Pred. No. 9.1e-195;
18; Mismatches 13; II
                                                                                                                                          NEUROTROPHIC FACTOR RECEPTOR
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NAME/KEY: misc_feature
LOCATION: (2107)..(2107)
OTHER INFORMATION: N in position 2107 indicates a potent information: ferent receptor clones
FEATURE:
NAME/KEY: misc_feature
LOCATION: (2241)..(2241)
OTHER INFORMATION: N in position 2241 indicates a potent information: ferent receptor clones
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR FILING DATE: 1996-05-09
NUMBER OF SEQ ID NOS: 47
SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
LENCTH: 465
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 434;
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NAME/KEY: misc feature
LOCATION: (2078)..(2078)
OTHER INFORMATION: N in
OTHER INFORMATION: feres
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NAME/KEY: misc feature
LOCATION: (2256)..(2294)
OTHER INFORMATION: N in positions 2256 to 2294 indicates
OTHER INFORMATION: tween different receptor clones
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc feature
LOCATION: (2250)..(2250)
OTHER INFORMATION: N in position 2250 indicates a position of divergence between
OTHER INFORMATION: fferent receptor clones
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               GKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLLSVSLAETS 468
                                                                               QTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF
                                                                                                                              YIDSSSLSVAPWCDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFGNGSDVTVWQPAFPV
                                                                                                                                               YVDSSSLS VAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV
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                                                              OTTTATTTALRYKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGNTHLCISNGNY
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92.7%;
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Pred. No. 9.1e-195;
8; Mismatches 13; I
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APPLICANT: Afar, Daniel
APPLICANT: Afar, Daniel
APPLICANT: Ginsberg, Wendy M.
APPLICANT: Gish, Kurt C.
APPLICANT: Gish, Kurt C.
APPLICANT: Gish, Kurt C.
APPLICANT: Murray, Richard
APPLICANT: Murray, Richard
APPLICANT: Methods of Diagnosis of Cancer, Compositions and
APPLICANT: Methods of Diagnosis of Cancer, Compositions and
TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
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TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
TITLE OF INVENTION: MUMBER: US 60/350, 666
PRIOR APPLICATION NUMBER: US 60/350, 666
PRIOR APPLICATION NUMBER: US 60/332, 464
PRIOR APPLICATION NUMBER: US 60/332, 464
PRIOR APPLICATION NUMBER: US 60/334, 393
PRIOR FILING DATE: 2001-11-21
PRIOR APPLICATION NUMBER: US 60/347, 211
PRIOR APPLICATION NUMBER: US 60/347, 211
PRIOR APPLICATION NUMBER: US 60/347, 349
PRIOR FILING DATE: 2002-01-08
PRIOR FILING DATE: 2002-01-10
PRIOR FILING DATE: 2002-02-01
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Remaining Prior Application data removed - NUMBER OF SEQ ID NOS: 1386 SOFTWARE: PatentIn Ver. 2.1
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YVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV 360
                                                   PNCLNLQDSCKTNYICRSRLADFFTNCQPESRSVSSCLKENYADCLLAYSGLIGTVMTPN
                                                                                      PNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLLAYSGLIGTVMTPN
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FILE REFERENCE: 018501-005210US
CURRENT APPLICATION NUMBER: US/10/058,270A
CURRENT PILING DATE: 2002-01-24
PRIOR APPLICATION NUMBER: US 60/263,965
PRIOR FILING DATE: 2001-01-24
PRIOR PILING DATE: 2001-02-02
PRIOR PILING DATE: 2001-02-02
PRIOR PILING DATE: 2001-02-02
PRIOR PILING DATE: 2001-04-09
PRIOR PILING DATE: 2001-04-09
PRIOR FILING DATE: 2001-04-09
PRIOR FILING DATE: 2001-04-09
PRIOR PILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 60/282,698
PRIOR APPLICATION NUMBER: US 60/288,590
PRIOR APPLICATION NUMBER: US 60/294,443
PRIOR PILING DATE: 2001-05-04
PRIOR PILING DATE: 2001-05-29
PRIOR PILING DATE: 2001-05-29
PRIOR PILING DATE: 2001-05-29
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SOFTWARE: PatentIn Ver. 2
SEQ ID NO 24
LENGTH: 465
TYPE: PRT
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Best Local :
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APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Breast Cancer, Compositions and
TITLE OF INVENTION: Methods of Screening for Modulators of Breast Cancer
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92.7%; Pred. No. 9.1e-195;
tive 18; Mismatches 13; Indels 3;
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; ORGANISM: HUMAN
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1) .. (539)
; OTHER INFORMATION: NO. U
US-10-155-693-12
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PRIOR PILING DATE: 1997-04-14
PRIOR PILING DATE: 1996-04-22
PRIOR PELLING DATE: 1996-04-22
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR PILING DATE: 1996-05-09
NUMBER OF SEQ ID NOS: 47
SOFTWARE: PATENTIN VERBION 3.1
SEQ ID NO 12
LENGTH: 463
TYPE: PRI
TYPE: PRI
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US-10-155-693-12
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Publication No. US20030175876A1
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Best Local Similarity
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APPLICANT: WEN, DUANZHI
TITLE OF INVENTION: GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR RECEPTOR
FILE REFERENCE: A-401C
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                                                               QTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGSTHLCLSDSDF
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Pred. No. 2.5e-194;
20; Mismatches 12;
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; ORGANISM: Homo Bapiens
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PRIOR APPLICATION NUMBER: US/08/861,990
PRIOR FILING DATE: 1997-05-22
PRIOR PELLING DATE: 1996-11-13
PRIOR PELLING DATE: 1996-11-13
PRIOR PELLING DATE: 1996-11-13
PRIOR PELLING DATE: 1995-11-13
PRIOR APPLICATION NUMBER: 60/006,619
PRIOR FILING DATE: 1995-04-16
PRIOR PELLING DATE: 1996-04-16
PRIOR PELLING DATE: 1996-04-16
PRIOR PELLING DATE: 1996-06-27
PRIOR APPLICATION NUMBER: 60/021,965
PRIOR PILING DATE: 1996-06-27
PRIOR APPLICATION NUMBER: 60/020,638
PRIOR PILING DATE: 1996-06-27
PRIOR APPLICATION NUMBER: 60/020,639
PRIOR APPLICATION NUMBER: 60/020,639
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PRIOR APPLICATION NUMBER: 60/020,639
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SOFTWARE: PatentIn Ver. SEQ ID NO 8
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Best Local Similarity 92.5%;
Matches 433; Conservative 1
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Publication No. US20040126819A1
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CURRENT APPLICATION NUMBER: US/10/673,007
CURRENT FILING DATE: 2003-09-26
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TITLE OF INVENTION: Glial Cell Line-Derived Neurotropic Factor Receptors
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                                                                                                                        YVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDVTMWQPAPPV 360
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CURRENT FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: US/08/837,199
PRIOR FILING DATE: 1997-04-14
PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR FILING DATE: 1996-05-09
NUMBER OF SEQ ID NOS: 47
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Best Local S
Matches 433
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Publication No. US20030175876A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: misc feature
LOCATION: (1091)..(1091)
OTHER INFORMATION: N in position 1091 indicates any nucleic
-10-155-693-6
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APPLICANT: JING, SHUQIAN
APPLICANT: WEN, DUANZHI
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LOCATION: (2256)..(2294)
OTHER INFORMATION: Ween of the comparison of the compa
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OTHER INFORMATION: note="1
FEATURE:
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NAME/KEY: misc_feature
LOCATION: (184)...(184)
OTHER INFORMATION: The
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OTHER INFORMATION: N in position 2078 indicates a position of divergence between
OTHER INFORMATION: ferent receptor clones
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TYPE: PRT
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                                     YEPVNSRLSDIFRAVPFISDVFQQVEHISKGNNCLDAAKACNLDDTCKKYRSAYITPCTT
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      YEPVNSRLSDIFRVVPFISDVFQQVEHIPKGNNCLDAAKACNLDDICKKYRSAYITPCTT
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LOCATION: (1) ... (537)
OTHER INFORMATION: No. US20030175876Ale= "1 to 537;
FEATURE:
NAME/KEY: misc_feature
LOCATION: (550)... (550)
OTHER INFORMATION: N in position 550 indicates any
US-10-155-693-10
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US-10-155-693-10
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                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 429; Conserv
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FEATURE:
NAME/KEY: misc feature
LOCATION: (5). (5)
OTHER INFORMATION: The
FEATURE:
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PRIOR APPLICATION NUMBER: US/08/837,199
PRIOR FILING DATE: 1997-04-14
PRIOR APPLICATION NUMBER: US 60/015,907
PRIOR FILING DATE: 1996-04-22
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR APPLICATION NUMBER: US 60/017,221
PRIOR FILING DATE: 1996-05-09
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CURRENT APPLICATION NUMBER: US/10/155,693
CURRENT FILING DATE: 2002-05-24
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APPLICANT: JING, SHUQIAN
APPLICANT: WEN, DUANZHI
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SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR
                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc_feature LOCATION: (1). (537)
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APPLICANT: Frantz, Gretchen
APPLICANT: Hillan, Kenneth J.
APPLICANT: Hillips, Heidi
APPLICANT: Pollakis, Paul
APPLICANT: Spencer, Susan
APPLICANT: Williams, P.Mickey
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US-10-241-220-62
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; ORGANISM: Homo Sapien
US-10-241-220-62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: TREATMENT OF TUMOR FILE REFERENCE: P5010R1-US CURRENT APPLICATION NUMBER: US/10/241,220 CURRENT FILING DATE: 2002-12-13
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                                                       PNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLLAYSGLIGTVMTPN 300
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GENERAL INFORMATION:

APPLICANT: FOX, GARY M.

APPLICANT: FOX, GARY M.

APPLICANT: WEN, DUANZHI

ITTLE OF INVENTION: GLIAL CELL LINE-DERIVED NEU

FILE REFERENCE: A-401C

CURRENT APPLICATION NUMBER: US/10/155,693

CURRENT FILING DATE: 2002-05-24

PRIOR APPLICATION NUMBER: US/08/837,199

PRIOR APPLICATION NUMBER: US/08/837,199

PRIOR APPLICATION NUMBER: US 60/015,907

PRIOR APPLICATION NUMBER: US 60/015,907

PRIOR PILING DATE: 1996-04-22

PRIOR PILING DATE: 1996-05-09

NUMBER OF SEQ ID NOS: 47

PRIOR FILING DATE: 1996-55-09
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US-10-155-693-16
Sequence 16, Application US/10155693
; Publication No. US20030175876A1
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Best Local S
Matches 267
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SEQ ID NO 16
LENGTH: 294
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LOCATION: (1204)..(1242)
OTHER INFORMATION: N in positions 1204 to 1242 indicates
OTHER INFORMATION: ween different receptor clones.
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LOCATION: (1)...(2157)
OTHER INFORMATION: No.
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ORGANISM: HUMAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HLCLSDSDFGKDGLAGASSHITTKSMAAPPSCSLSSLPVLMLTALAALLSVSLAETS 468
                                                                                      TMWQPAPPVQTTTATTTTAFRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGST 411
                                                                                                                                         LIGTVMTPNYIDSSSLSVAPWCDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFGNGSDV 180
                                                                                                                                                         LIGTVMTPNYVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDV
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HLCISNGNYEKEGL-GASSHITTKSMAAPPSCGLSPLLVLVVTALSTLL--SLTETS 294
                                                                    TVWQPAFPVQTTTAATTTALRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGNT
                                                                                                                                                                                                            VCSYEEREKPNCLNLQDSCKTNYICRSRLADFFTNCQPESRSVSSCLKENYADCLLAYSG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QTTTATTTTALRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGNTHLCISNGNY 415
                                                                                                                                                                                                                                                                                                                                                  57.5%; ilarity 89.9%; Conservative 1
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Pred. No. 2.9e-117;
7; Mismatches 10;
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RESULT 15

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APPLICANT: FOX, GARY M.

APPLICANT: JING, SHUQIAN

APPLICANT: WEEN, DIANZHI

TITLE OF INVERTION: GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR RECEPTOR

FILE REFERENCE: A-401C

CURRENT APPLICATION NUMBER: US/10/155,693

CURRENT FILING DATE: 2002-05-24

PRIOR APPLICATION NUMBER: US/06/837,199

PRIOR FILING DATE: 1997-04-14

PRIOR APPLICATION NUMBER: US 60/015,907

PRIOR FILING DATE: 1996-04-22

PRIOR APPLICATION NUMBER: US 60/017,221

PRIOR FILING DATE: 1996-05-09

NUMBER OF SEQ ID NO.8: 47

SEQ ID NO.14

LENGTH: 232

TYPE: PRT

ORGANISM: HUMAN

FEATURE:
NAME/KEY: misc feature

JOCATION: (1). (699)

US-10-155-693-14
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Sequence 14, Application US/10155693
Publication No. US20030175876A1
GENERAL INFORMATION:
Search completed: February 17, 2005, 09:48:37 Job time : 143 secs
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                                                                                                                                                                                                                                                                                                                                                  Query Match 49.0%; Score 1220; DB 14; Length 232; Best Local Similarity 95.3%; Pred. No. 8.2e-99; Matches 221; Conservative 8; Mismatches 3; Indels 0
                                                                232 VCSYEERERPNCLSLQDSCKTNYICRSRLADFFTNCQPESRSVSNCLKENYADCLLAYSG
                                                                                                                                                          292 LIGTVMTPNYVDSSSLSVAPWCDCSNSGNDLEDCLKFLNFFKDNTCLKNAIQAFGNGSDV 351
                                                                                                                                        121 LIGTVMTPNYIDSSSLSVAPWCDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFGNGSDV 180
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